

QUESTIONS ASKED IN PREVIOUS SSC EXAMS

TYPE-I

- If  $a : b = 7 : 9$  and  $b : c = 15 : 7$ , then what is  $a : c$ ?  
 (1)  $5 : 3$  (2)  $3 : 5$   
 (3)  $7 : 21$  (4)  $7 : 15$   
 (SSC CGL Prelim Exam. 04.07.1999 (First Sitting))
- If  $x = \frac{1}{3}y$  and  $y = \frac{1}{2}z$ , then  $x : y : z$ , is equal to :  
 (1)  $3 : 2 : 1$  (2)  $1 : 2 : 6$   
 (3)  $1 : 3 : 6$  (4)  $2 : 4 : 6$   
 (SSC CGL Prelim Exam. 04.07.1999 (Second Sitting))
- If  $p : q = r : s = t : u = 2 : 3$ , then  $(mp + nr + ot) : (mq + ns + ou)$  is equal to :  
 (1)  $1 : 3$  (2)  $1 : 2$   
 (3)  $2 : 3$  (4)  $3 : 2$   
 (SSC CGL Prelim Exam. 27.02.2000 (First Sitting))
- If  $a : b = c : d = e : f = 1 : 2$ , then  $(pa + qc + re) : (pb + qd + rf)$  is equal to :  
 (1)  $p : (q + r)$  (2)  $(p + q) : r$   
 (3)  $2 : 3$  (4)  $1 : 2$   
 (SSC CGL Prelim Exam. 27.02.2000 (First Sitting))
- If  $x : y = 3 : 1$ , then  $x^3 - y^3 : x^3 + y^3 = ?$   
 (1)  $13 : 14$  (2)  $14 : 13$   
 (3)  $10 : 11$  (4)  $11 : 10$   
 (SSC CGL Prelim Exam. 27.02.2000 (First Sitting))
- The fourth proportional to 0.12, 0.21, 8 is :  
 (1) 8.9 (2) 56  
 (3) 14 (4) 17  
 (SSC CGL Prelim Exam. 27.02.2000 (First Sitting))
- The ratio  $2^{1.5} : 2^{0.5}$  is the same as :  
 (1)  $2 : 1$  (2)  $3 : 1$   
 (3)  $6 : 1$  (4)  $3 : 2$   
 (SSC CGL Prelim Exam. 27.02.2000 (Second Sitting))
- If  $m : n = 3 : 2$ , then  $(4m + 5n) : (4m - 5n)$  is equal to :  
 (1)  $4 : 9$  (2)  $9 : 4$   
 (3)  $11 : 1$  (4)  $9 : 1$   
 (SSC CGL Prelim Exam. 27.02.2000 (Second Sitting))

- If  $A : B = 3 : 4$ ,  $B : C = 5 : 7$  and  $C : D = 8 : 9$  then  $A : D$  is equal to  
 (1)  $3 : 7$  (2)  $7 : 3$   
 (3)  $21 : 10$  (4)  $10 : 21$   
 (SSC CGL Prelim Exam. 24.02.2002 & 13.11.2005 (Middle Zone))
- If  $a : b = \frac{2}{9} : \frac{1}{3}$ ,  
 $b : c = \frac{2}{7} : \frac{5}{14}$  and  $d : c = \frac{7}{10} : \frac{3}{5}$   
 then  $a : b : c : d$  is  
 (1)  $4 : 6 : 7 : 9$   
 (2)  $16 : 24 : 30 : 35$   
 (3)  $8 : 12 : 15 : 7$   
 (4)  $30 : 35 : 24 : 16$   
 (SSC CGL Prelim Exam. 11.05.2003 (First Sitting))
- If  $b$  is the mean proportional of  $a$  and  $c$ , then  $(a - b)^3 : (b - c)^3$  equals  
 (1)  $a^3 : c^3$  (2)  $b^2 : c^2$   
 (3)  $a^2 : c^2$  (4)  $a^3 : b^3$   
 (SSC CPO S.I. Exam. 05.09.2004)
- ₹ 6200 divided into three parts proportional to  $\frac{1}{2} : \frac{1}{3} : \frac{1}{5}$  are respectively  
 (1) ₹ 3000, ₹ 2000, ₹ 1200  
 (2) ₹ 3500, ₹ 1500, ₹ 1200  
 (3) ₹ 2500, ₹ 2000, ₹ 1700  
 (4) ₹ 2200, ₹ 3000, ₹ 1000  
 (SSC CPO S.I. Exam. 05.09.2004)
- 94 is divided into two parts in such a way that the fifth part of the first and the eighth part of the second are in the ratio 3 : 4. The first part is :  
 (1) 30 (2) 36  
 (3) 40 (4) 28  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
- If  $a : b = 5 : 7$  and  $c : d = 2a : 3b$ , then  $ac : bd$  is :  
 (1)  $20 : 38$  (2)  $50 : 147$   
 (3)  $10 : 21$  (4)  $50 : 151$   
 (SSC CGL Prelim Exam. 13.11.2005 (First Sitting))
- If  $x : y = 3 : 2$ , then the ratio  $2x^2 + 3y^2 : 3x^2 - 2y^2$  is equal to :  
 (1)  $12 : 5$  (2)  $6 : 5$   
 (3)  $30 : 19$  (4)  $5 : 3$   
 (SSC CGL Prelim Exam. 13.11.2005 (First Sitting))

- If  $a : b = b : c$ , then  $a^4 : b^4$  is equal to  
 (1)  $ac : b^2$  (2)  $a^2 : c^2$   
 (3)  $c^2 : a^2$  (4)  $b^2 : ac$   
 (SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))
- If  $A : B = \frac{1}{2} : \frac{3}{8}$ ,  $B : C = \frac{1}{3} : \frac{5}{9}$   
 and  $C : D = \frac{1}{6} : \frac{4}{9}$ , then the ratio  $A : B : C : D$  is  
 (1)  $6 : 4 : 8 : 10$   
 (2)  $6 : 8 : 9 : 10$   
 (3)  $8 : 6 : 10 : 9$   
 (4)  $4 : 6 : 8 : 10$   
 (SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))
- If  $A : B : C = 2 : 3 : 4$ , then ratio  $\frac{A}{B} : \frac{B}{C} : \frac{C}{A}$  is equal to  
 (1)  $8 : 9 : 16$  (2)  $8 : 9 : 12$   
 (3)  $8 : 9 : 24$  (4)  $4 : 9 : 16$   
 (SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))
- If  $a : b = c : d = e : f = 1 : 2$ , then  $(3a + 5c + 7e) : (3b + 5d + 7f)$  is equal to  
 (1)  $8 : 7$  (2)  $2 : 1$   
 (3)  $1 : 4$  (4)  $1 : 2$   
 (SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))
- If  $a : (b+c) = 1 : 3$  and  $c : (a+b) = 5 : 7$ , then  $b : (a+c)$  is equal to  
 (1)  $1 : 2$  (2)  $2 : 3$   
 (3)  $1 : 3$  (4)  $2 : 1$   
 (SSC CPO S.I. Exam. 03.09.2006)
- If  $p : q : r = 1 : 2 : 4$ , then  $\sqrt{5p^2 + q^2 + r^2}$  is equal to  
 (1) 5 (2)  $2q$   
 (3)  $5p$  (4)  $4r$   
 (SSC CPO S.I. Exam. 03.09.2006)
- The mean proportional between  $(3 + \sqrt{2})$  and  $(12 - \sqrt{32})$  is  
 (1)  $\sqrt{7}$  (2)  $2\sqrt{7}$   
 (3) 6 (4)  $\frac{15 - 3\sqrt{2}}{2}$   
 (SSC CPO S.I. Exam. 03.09.2006)

**RATIO AND PROPORTION**

- 23.** If  $x : y = 2 : 3$ , then the value of  $\frac{3x + 2y}{9x + 5y}$  is equal to  
 (1)  $\frac{11}{4}$  (2)  $\frac{4}{11}$   
 (3)  $\frac{1}{2}$  (4)  $\frac{5}{14}$   
 (SSC CPO S.I. Exam. 03.09.2006)
- 24.** If  $a, b, c$  are three numbers such that  $a : b = 3 : 4$  and  $b : c = 8 : 9$ , then  $a : c$  is equal to  
 (1) 1 : 3 (2) 2 : 3  
 (3) 3 : 2 (4) 1 : 2  
 (SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting))
- 25.** If  $a : b : c = 2 : 3 : 4$  and  $2a - 3b + 4c = 33$ , then the value of  $c$  is  
 (1) 6 (2) 9  
 (3) 12 (4)  $\frac{66}{7}$   
 (SSC CGL Prelim Exam. 04.02.2007 (First Sitting))
- 26.** If  $a : b = c : d$ , then  $\frac{ma + nc}{mb + nd}$  is **not** equal to  
 (1)  $\frac{a}{b}$  (2)  $\frac{c}{d}$   
 (3)  $\frac{a+c}{b+d}$  (4)  $\frac{c-a}{b-d}$   
 (SSC CGL Prelim Exam. 04.02.2007 (Second Sitting))
- 27.** The ratio of A to B is 4 : 5 and that of B to C is 2 : 3. If A equals 800, C equals  
 (1) 1000 (2) 1200  
 (3) 1500 (4) 2000  
 (SSC CGL Prelim Exam. 04.02.2007 (Second Sitting))
- 28.** If  $a : b : c = 7 : 3 : 5$ , then  $(a + b + c) : (2a + b - c)$  is equal to  
 (1) 1 : 2 (2) 2 : 3  
 (3) 3 : 4 (4) 5 : 4  
 (SSC CGL Prelim Exam. 04.02.2007 (Second Sitting))
- 29.** If  $A : B = 2 : 3$  and  $B : C = 4 : 5$ , then  $A : B : C$  is  
 (1) 2 : 3 : 5 (2) 5 : 4 : 6  
 (3) 6 : 4 : 5 (4) 8 : 12 : 15  
 (SSC Section Officer (Commercial Audit) Exam. 30.09.2007 (Second Sitting))
- 30.** If two times of A is equal to three times of B and also equal to four times of C, then  $A : B : C$  is  
 (1) 2 : 3 : 4 (2) 3 : 4 : 2  
 (3) 4 : 6 : 3 (4) 6 : 4 : 3  
 (SSC Section Officer (Commercial Audit) Exam. 30.09.2007 (Second Sitting))
- 31.** If  $A : B = 2 : 3$ ,  $B : C = 2 : 4$  and  $C : D = 2 : 5$ , then  $A : D$  is equal to :  
 (1) 2 : 15 (2) 2 : 5  
 (3) 1 : 5 (4) 3 : 5  
 (SSC CPO S.I. Exam. 16.12.2007)
- 32.** If  $a : b : c = 3 : 4 : 7$ , then the ratio  $(a + b + c) : c$  is equal to  
 (1) 2 : 1 (2) 14 : 3  
 (3) 7 : 2 (4) 1 : 2  
 (SSC CGL Prelim Exam. 27.07.2008 (First Sitting))
- 33.** If A and B are in the ratio 3 : 4, and B and C in the ratio 12 : 13, then A and C will be in the ratio  
 (1) 3 : 13 (2) 9 : 13  
 (3) 36 : 13 (4) 13 : 9  
 (SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))
- 34.** If  $A : B = 3 : 2$  and  $B : C = 3 : 4$  then  $A : C$  is equal to  
 (1) 1 : 2 (2) 2 : 1  
 (3) 8 : 9 (4) 9 : 8  
 (SSC CPO S.I. Exam. 09.11.2008)
- 35.** If  $x : y = 2 : 1$ , then  $(x^2 - y^2) : (x^2 + y^2)$  is  
 (1) 3 : 5 (2) 5 : 3  
 (3) 4 : 5 (4) 5 : 6  
 (SSC CPO S.I. Exam. 06.09.2009)
- 36.** If ₹ 1000 is divided between A and B in the ratio 3 : 2, then A will receive  
 (1) ₹ 400 (2) ₹ 500  
 (3) ₹ 600 (4) ₹ 800  
 (SSC CGL Tier-I Exam. 16.05.2010 (First Sitting))
- 37.** If  $W_1 : W_2 = 2 : 3$  and  $W_1 : W_3 = 1 : 2$  then  $W_2 : W_3$  is  
 (1) 3 : 4 (2) 4 : 3  
 (3) 2 : 3 (4) 4 : 5  
 (SSC CGD Tier-I Exam. 16.05.2010 (Second Sitting))
- 38.** If  $3x = 5y = 4z$ , then  $x : y : z$  is equal to  
 (1) 9 : 12 : 16 (2) 20 : 12 : 15  
 (3) 15 : 10 : 9 (4) 8 : 5 : 3  
 (SSC SAS Exam. 26.06.2010 (Paper-1))
- 39.** If  $A : B = 3 : 4$  and  $B : C = 6 : 5$ , then  $A : (A + C)$  is equal to  
 (1) 9 : 10 (2) 10 : 9  
 (3) 9 : 19 (4) 19 : 9  
 (SSC CISF ASI Exam. 29.08.2010 (Paper-1))
- 40.** If  $a$  and  $b$  are rational numbers and  $a + b\sqrt{3} = \frac{1}{2 - \sqrt{3}}$ , then  $a : b$  is equal to  
 (1) - 2 : 1 (2) 2 : 1  
 (3)  $\sqrt{3} : 1$  (4)  $-\sqrt{3} : 1$   
 (SSC (South Zone) Investigator Exam. 12.09.2010)
- 41.** If  $A : B = 3 : 4$  and  $B : C = 8 : 9$ , then  $A : B : C$  is  
 (1) 8 : 6 : 9 (2) 9 : 8 : 6  
 (3) 6 : 8 : 9 (4) 3 : 32 : 9  
 (SSC CPO S.I. Exam. 12.12.2010 (Paper-I))
- 42.** If 78 is divided into three parts which are in the ratio  $\frac{1}{3} : \frac{1}{6}$ , the middle part is  
 (1)  $9\frac{1}{3}$  (2) 13  
 (3)  $17\frac{1}{3}$  (4)  $18\frac{1}{3}$   
 (SSC CGL Tier-1 Exam. 19.06.2011 (First Sitting))
- 43.** If  $x : y = 4 : 5$ , then  $(3x + y) : (5x + 3y) =$   
 (1) 3 : 5 (2) 5 : 3  
 (3) 17 : 35 (4) 35 : 17  
 (SSC CGL Tier-1 Exam. 19.06.2011 (Second Sitting))
- 44.** If  $x : y = 5 : 6$ , then  $\{3x^2 - 2y^2\} : \{y^2 - x^2\}$  is  
 (1) 7 : 6 (2) 11 : 3  
 (3) 3 : 11 (4) 6 : 7  
 (SSC CGL Tier-1 Exam. 26.06.2011 (Second Sitting))
- 45.** If  $x : y = 3 : 4$ , then  $4x + 5y : 5x - 2y =$   
 (1) 7 : 32 (2) 32 : 7  
 (3) 4 : 3 (4) 5 : 2  
 (SSC CPO (SI, ASI & Intelligence Officer) Exam. 28.08.2011 (Paper-I))
- 46.** If  $A : B$  is 2 : 3,  $B : C$  is 6 : 11, then  $A : B : C$  is :  
 (1) 2 : 3 : 11 (2) 4 : 6 : 22  
 (3) 4 : 6 : 11 (4) 2 : 6 : 11  
 FCI Assistant Grade-III Exam. 05.02.2012 (Paper-I) East Zone (IInd Sitting)
- 47.** If two-third of A is four-fifth of B, then  $A : B = ?$   
 (1) 5 : 6 (2) 6 : 5  
 (3) 10 : 9 (4) 9 : 10  
 FCI Assistant Grade-III Exam. 05.02.2012 (Paper-I) East Zone (IInd Sitting)

## RATIO AND PROPORTION

48. If  $\frac{2}{3}$  of A = 75% of B = 0.6 of C, then A : B : C is  
 (1) 2 : 3 : 3 (2) 3 : 4 : 5  
 (3) 4 : 5 : 6 (4) 9 : 8 : 10  
 (SSC CGL Prelim Exam. 27.07.2008 (IInd Sitting) & SSC CISF ASI Exam. 29.08.2010)
49. ₹ 33,630 are divided among A, B and C in such a manner that the ratio of the amount of A to that of B is 3 : 7 and the ratio of the amount of B to that of C is 6 : 5. The amount of money received by B is  
 (1) ₹ 14,868 (2) ₹ 16,257  
 (3) ₹ 13,290 (4) ₹ 12,390  
 (SSC CGL Prelim Exam. 04.02.2007 (First Sitting))
50. If A : B = 3 : 5 and B : C = 4 : 7, then A : B : C is  
 (1) 6 : 9 : 14 (2) 3 : 5 : 7  
 (3) 12 : 20 : 21 (4) 12 : 20 : 35  
 (SSC Data Entry Operator Exam. 31.08.2008)
51. If A =  $\frac{4}{5}$  of B and B =  $\frac{5}{2}$  of C, then the ratio of A : C is  
 (1) 1 : 2 (2) 2 : 1  
 (3) 2 : 3 (4) 1 : 3  
 (SSC Data Entry Operator Exam. 02.08.2009)
52. If A =  $\frac{1}{4}$  B and B =  $\frac{1}{2}$  C, then A : B : C is :  
 (1) 8 : 4 : 1 (2) 4 : 2 : 1  
 (3) 1 : 4 : 8 (4) 1 : 2 : 4  
 (SSC CHSL DEO & LDC Exam. 27.11.2010)
53. If 2A = 3B = 4C, then A : B : C is :  
 (1) 2 : 3 : 4 (2) 4 : 3 : 2  
 (3) 6 : 4 : 3 (4) 3 : 4 : 6  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (1st Sitting))
54. The ratio  $4^{3.5} : 2^5$  is the same as  
 (1) 4 : 1 (2) 2 : 1  
 (3) 1 : 2 (4) 1 : 4  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (1st Sitting))
55. If A : B = 1 : 2, B : C = 3 : 4, C : D = 6 : 9 and D : E = 12 : 16 then A : B : C : D : E is equal to  
 (1) 1 : 3 : 6 : 12 : 16  
 (2) 2 : 4 : 6 : 9 : 16  
 (3) 3 : 4 : 8 : 12 : 16  
 (4) 3 : 6 : 8 : 12 : 16  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (IInd Sitting))
56. If  $x : y = 2 : 5$ , then  $(5x + 3y) : (5x - 3y)$  is equal to  
 (1) 5 (2) 3  
 (3) -3 (4) -5  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (IInd Sitting))
57. If  $\frac{a}{b} = \frac{2}{3}$  and  $\frac{b}{c} = \frac{4}{5}$ , then  $(a + b) : (b + c) = ?$   
 (1) 3 : 4 (3) 4 : 5  
 (2) 5 : 9 (4) 20 : 27  
 (SSC Multi-Tasking (Non-Technical) Staff Exam. 27.02.2011)
58. Marks of two candidates P and Q are in the ratio of 2 : 5. If the marks of P is 120, marks of Q will be  
 (1) 120 (2) 240  
 (3) 300 (4) 360  
 (SSC CISF Constable (GD) Exam. 05.06.2011)
59. If A : B = 4 : 9 and A : C = 2 : 3, then (A + B) : (A + C) is  
 (1) 15 : 13 (2) 10 : 13  
 (3) 13 : 10 (4) 13 : 15  
 (SSC CHSL DEO & LDC Exam. 04.12.2011 (1st Sitting (North Zone)))
60. The third proportional to 0.8 and 0.2 is :  
 (1) 0.05 (2) 0.8  
 (3) 0.4 (4) 0.032  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
61. If  $x : y = 3 : 4$ , then the value of  $\frac{5x - 2y}{7x + 2y} =$   
 (1)  $\frac{7}{25}$  (2)  $\frac{7}{23}$   
 (3)  $\frac{7}{29}$  (4)  $\frac{7}{17}$   
 (SSC Multi-Tasking (Non-Technical) Staff Exam. 22.02.2011)
62. There are three numbers A, B, C such that twice A is equal to thrice B and four times B is equal to five times C. Then the ratio between A and C is  
 (1) 3 : 4 (2) 8 : 15  
 (3) 15 : 8 (4) 4 : 3  
 (SSC CPO S.I. Exam. 06.09.2009)
63. On mixing two classes A and B of students having average marks 25 and 40 respectively, the overall average obtained is 30. Find the ratio of the students in the class A and B.  
 (1) 2 : 1 (2) 5 : 8  
 (3) 5 : 6 (4) 3 : 4  
 (SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting))
64. A fruit seller sold big, medium and small sized apples for ₹ 15, ₹ 10 and ₹ 5 respectively. The total number of apples sold were in the ratio 3 : 2 : 5. Find the average cost of an apple.  
 (1) ₹ 8 (2) ₹ 10  
 (3) ₹ 9 (4) ₹ 7  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
65. In a school, the ratio of boys to girls is 4 : 3 and the ratio of girls to teachers is 8 : 1. The ratio of students to teachers is :  
 (1) 56 : 3 (2) 55 : 1  
 (3) 49 : 3 (4) 56 : 1  
 (SSC CHSL DEO & LDC Exam. 04.11.2012, 1st Sitting)
66. If  $\frac{3x + 5}{5x - 2} = \frac{2}{3}$ , then the value of  $x$  is  
 (1) 11 (2) 19  
 (3) 23 (4) 7  
 (SSC CHSL DEO & LDC Exam. 04.11.2012, 1st Sitting)
67. A, B and C are batsmen. The ratio of the runs scored by them in a certain match are given below :  
 A : B = 5 : 3 and B : C = 4 : 5. In all they scored 564 runs. The number of runs scored by B is :  
 (1) 124 (2) 104  
 (3) 114 (4) 144  
 (SSC CHSL DEO & LDC Exam. 04.11.2012, 1st Sitting)
68. If  $(a + b) : (b + c) : (c + a) = 6 : 7 : 8$  and  $(a + b + c) = 14$ , then the value of  $c$  is  
 (1) 6 (2) 7  
 (3) 8 (4) 14  
 (SSC CHSL DEO & LDC Exam. 27.10.2013 (IInd Sitting))
69. If 5.5 of  $a = 0.65$  of  $b$ , then  $a : b$  is equal to :  
 (1) 13 : 11 (2) 11 : 13  
 (3) 13 : 110 (4) 110 : 13  
 (SSC Multi-Tasking Staff Exam. 10.03.2013)

**RATIO AND PROPORTION**

- 70.** The ratio of boys and girls in a college is 5 : 3. If 50 boys leave the college and 50 girls join the college, the ratio becomes 9 : 7. The number of boys in the college is  
 (1) 300 (2) 400  
 (3) 500 (4) 600  
 (SSC CHSL DEO & LDC Exam. 10.11.2013, 1st Sitting)
- 71.** A person distributes his pens among four friends A, B, C, D in the ratio  $\frac{1}{3} : \frac{1}{4} : \frac{1}{5} : \frac{1}{6}$ . What is the minimum number of pens that the person should have?  
 (1) 57 (2) 65  
 (3) 75 (4) 45  
 (SSC Graduate Level Tier-I Exam. 21.04.2013)
- 72.** If  $A = \frac{2}{3}$  of B and  $B = \frac{4}{5}$  of C] then A : B : C is.  
 (1) 12 : 8 : 10 (2) 15 : 10 : 8  
 (3) 10 : 15 : 12 (4) 8 : 12 : 15  
 (SSC Constable (GD) Exam. 12.05.2013)
- 73.** The ratio of  $25^{2.5} : 5^3$  is same as  
 (1) 5 : 3 (2) 5 : 6  
 (3) 1 : 25 (4) 25 : 1  
 (SSC Graduate Level Tier-I Exam. 19.05.2013)
- 74.** The third proportional of 12 and 18 is  
 (1) 3 (2) 6  
 (3) 27 (4) 144  
 (SSC Graduate Level Tier-II Exam. 29.09.2013)
- 75.** If  $x$  runs are scored by A,  $y$  runs by B and  $z$  runs by C, then  $x : y = y : z = 3 : 2$ . If total number of runs scored by A, B and C is 342, the runs scored by each would be respectively  
 (1) 144, 96, 64 (2) 162, 108, 72  
 (3) 180, 120, 80 (4) 189, 126, 84  
 (SSC Graduate Level Tier-II Exam. 29.09.2013)
- 76.** If A : B = 3 : 4 and B : C = 6 : 5, then C : A is  
 (1) 10 : 9 (2) 9 : 10  
 (3) 8 : 9 (4) 9 : 8  
 (SSC CHSL DEO & LDC Exam. 10.11.2013, 1st Sitting)
- 77.** Find two mean proportionals between 2 and 54.  
 (1) 6 and 18 (2) 6 and 12  
 (3) 12 and 18 (4) 6 and 9  
 (SSC CGL Tier-I Re-Exam. (2013) 20.07.2014 (1st Sitting))
- 78.** Which of the following represents a correct proportion ?  
 (1) 12 : 9 = 16 : 12  
 (2) 13 : 11 = 5 : 4  
 (3) 30 : 45 = 13 : 24  
 (4) 3 : 5 = 2 : 5  
 (SSC CGL Tier-I Exam. 19.10.2014 (1st Sitting))
- 79.** If 18,  $x$  and 50 are in continued proportion, then the value of  $x$  is  
 (1) 30 (2) 3  
 (3) 5 (4) 32  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014)
- 80.** If A : B = 7 : 9 and B : C = 3 : 5, then A : B : C is equal to  
 (1) 7 : 9 : 5 (2) 21 : 35 : 45  
 (3) 7 : 9 : 15 (4) 7 : 3 : 15  
 (SSC CHSL DEO & LDC Exam. 02.11.2014 (IInd Sitting))
- 81.** If  $x : y = 5 : 2$ , then  
 (1) 22 : 29 (2) 26 : 61  
 (3) 29 : 22 (4) 61 : 26  
 (SSC CHSL DEO & LDC Exam. 9.11.2014)
- 82.** The ratio of the length of a school ground to its width is 5 : 2. If the width is 40 m, then the length is  
 (1) 200 m (2) 100 m  
 (3) 50 m (4) 80 m  
 (SSC CHSL DEO Exam. 02.11.2014 (1st Sitting))
- 83.** If  $x : y :: 2 : 3$  and  $2 : x :: 4 : 8$  the value of  $y$  is  
 (1) 6 (2) 8  
 (3) 4 (4) 12  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014 TF No. 999 KP0)
- 84.** If  $(a + b) : \sqrt{ab} = 4 : 1$ , where  $a > b > 0$ , then  $a : b$  is  
 (1)  $(2 + \sqrt{3}) : (2 - \sqrt{3})$   
 (2)  $(2 - \sqrt{3}) : (2 + \sqrt{3})$   
 (3)  $(3 + \sqrt{2}) : (3 - \sqrt{2})$   
 (4)  $(3 - \sqrt{2}) : (3 + \sqrt{2})$   
 (SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014, IInd Sitting TF No. 545 QP 6)
- 85.** 12 monkeys can eat 12 bananas in 12 minutes. In how many minutes can 4 monkeys eat 4 bananas ?  
 (1) 10 (2) 12  
 (3) 4 (4) 8  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 21.06.2015 (1st Sitting) TF No. 8037731)
- 86.** What must be added to each term of the ratio 2 : 5 so that it may equal to 5 : 6 ?  
 (1) 65 (2) 78  
 (3) 13 (4) 12  
 (SSC CGL Tier-I Exam, 16.08.2015 (1st Sitting) TF No. 3196279)
- 87.** If A : B = 2 : 3 and B : C = 3 : 7, then A + B : B + C : C + A is  
 (1) 4 : 8 : 9 (2) 5 : 8 : 9  
 (3) 5 : 10 : 9 (4) 4 : 10 : 9  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 88.** If  $(x^3 - y^3) : (x^2 + xy + y^2) = 5 : 1$  and  $(x^2 - y^2) : (x - y) = 7 : 1$ , then the ratio  $2x : 3y$  equals  
 (1) 4 : 1 (2) 2 : 3  
 (3) 4 : 3 (4) 3 : 2  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 89.** If A : B = 2 : 1 and A : C = 1 : 3, then A : B : C is  
 (1) 1 : 3 : 2 (2) 1 : 2 : 6  
 (3) 3 : 2 : 1 (4) 2 : 1 : 6  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 20.12.2015 (1st Sitting) TF No. 9692918)
- 90.** The mean proportion of 1.21 and 0.09 is  
 (1) 3-3 (2) 0-33  
 (3) 3-03 (4) 0-033  
 (SSC Constable (GD) Exam, 04.10.2015, 1st Sitting)
- 91.** The numbers  $x$ ,  $y$  and  $z$  are respectively proportional to 2, 3 and 5 and the sum of  $x$ ,  $y$  and  $z$  is 80. If the number  $z$  is given by the equation  $z = ax - 8$ , then  $a$  is  
 (1) 6 (2)  $\frac{3}{2}$   
 (3) 3 (4)  $\frac{5}{2}$   
 (SSC CGL Tier-I (CBE) Exam. 10.09.2016)
- 92.** Rs. 2420 were divided among A, B and C so that A : B = 5 : 4 and B : C = 9 : 10 then C gets  
 (1) Rs. 680 (2) Rs. 800  
 (3) Rs. 900 (4) Rs. 950  
 (SSC CGL Tier -II Online Exam. 01.12.2016)
- 93.** Among 132 examinees of a certain school, the ratio of successful to unsuccessful students is 9 : 2. Had 4 more students passed, then the ratio of successful to unsuccessful students would have been  
 (1) 14 : 3 (2) 14 : 5  
 (3) 28 : 3 (4) 28 : 5  
 (SSC CGL Tier -II Online Exam. 01.12.2016)

**RATIO AND PROPORTION**

**94.** In a regiment the ratio between the number of officers to soldiers was 3 : 31 before battle. In a battle 6 officers and 22 soldiers were killed and the ratio became 1 : 13, the number of officers in the regiment before battle was  
 (1) 31 (2) 38  
 (3) 21 (4) 28  
 (SSC CGL Tier-II Online Exam.01.12.2016)

**95.** The ratio of number of boys and girls in a school of 720 students is 7 : 5. How many more girls should be admitted to make the ratio 1 : 1 ?  
 (1) 90 (2) 120  
 (3) 220 (4) 240  
 (SSC CHSL (10+2) Tier-I (CBE) Exam. 08.09.2016) (1st Sitting)

**96.** The number of pupils of a class is 55. The ratio of the number of male pupils to the number of female pupils is 5 : 6. The number of female pupils is  
 (1) 11 (2) 25  
 (3) 30 (4) 35  
 (SSC CGL Tier-I (CBE) Exam. 02.09.2016) (1st Sitting)

**97.** In a parade of school students, the number of boys and girls are in the ratio of 9 : 7 respectively and the number of students is 256. Find the number of girls.  
 (1) 102 (2) 112  
 (3) 118 (4) 128  
 (SSC CGL Tier-I (CBE) Exam. 02.09.2016) (IInd Sitting)

**98.** Sum of two numbers is thrice their difference. Their ratio is  
 (1) 1:2 (2) 2:1  
 (3) 3:1 (4) 1:3  
 (SSC CGL Tier-I (CBE) Exam. 07.09.2016) (1st Sitting)

**99.** The compound ratio of the inverse ratios of the ratios  $x : yz, y : zx, z : xy$  is :  
 (1) 1 : xyz (2) xyz : 1  
 (3) 1 : 1 (4) x : yz  
 (SSC CGL Tier-I (CBE) Exam. 30.08.2016) (IInd Sitting)

**100.** If  $\sqrt{x + \frac{1}{x}} : \sqrt{x - \frac{1}{x}} = 5 : 3$ , then the value(s) of  $x$  is/are  
 (1) ±1 (2) ±2  
 (3) ±3 (4) 0  
 (SSC CGL Tier-I (CBE) Exam. 31.08.2016) (IInd Sitting)

**101.** If the three numbers in the ratio 3 : 2 : 5 be such that the sum of the squares is equal to 1862 then which number is the middle one ?  
 (1) 16 (2) 14  
 (3) 13 (4) 15  
 (SSC CGL Tier-II (CBE) Exam. 30.11.2016)

**102.** If  $2r = h + \sqrt{r^2 + h^2}$  then the ratio  $r : h$  ( $r \neq 0$ ) is  
 (1) 1 : 2 (2) 2 : 3  
 (3) 4 : 3 (4) 3 : 5  
 (SSC CGL Tier-II (CBE) Exam. 30.11.2016)

**103.** A box of sweets was distributed between A and B in the ratio 3 : 4. If A got 36 sweets, what was the total number of sweets?  
 (1) 12 (2) 84  
 (3) 144 (4) 27  
 (SSC CGL Tier-I (CBE) Exam. 03.09.2016) (IInd Sitting)

**104.** In a college union, there are 48 students. The ratio of the number of boys to the number of girls is 5 : 3. The number of girls to be added in the union, so that the ratio of boys to girls in 6 : 5 is  
 (1) 6 (2) 7  
 (3) 12 (4) 17  
 (SSC CGL Tier-II (CBE) Exam. 12.01.2017)

**105.** In a coloured picture of blue and yellow color, blue and yellow colour is used in the ratio of 4 : 3 respectively. If in upper half, blue : yellow is 2 : 3, then in the lower half blue : yellow is  
 (1) 1 : 1 (2) 2 : 1  
 (3) 26 : 9 (4) 9 : 26  
 (SSC CGL Tier-II (CBE) Exam. 12.01.2017)

**TYPE-II**

**1.** To get the ratio  $p : q$  (for  $p \neq q$ ), one has to add a number to each term of the ratio  $x : y$ , the number is

- (1)  $\frac{px + qy}{p - q}$  (2)  $\frac{qx - py}{p - q}$   
 (3)  $\frac{px - qy}{p - q}$  (4)  $\frac{py - qx}{p - q}$

(SSC CHSL DEO & LDC Exam. 04.12.2011) (IInd Sitting (North Zone))

**2.** If  $x : y = 3 : 4$ , then the value of  $(4x - y) : (2x + 3y)$  is  
 (1) 4 : 9 (2) 8 : 9  
 (3) 4 : 3 (4) 8 : 3

(SSC CHSL DEO & LDC Exam. 11.12.2011) (1st Sitting (East Zone))

**3.** If  $x : y = 3 : 4$  and  $y : z = 3 : 4$ , then  $\frac{x + y + z}{3z}$  is equal to

- (1)  $\frac{13}{27}$  (2)  $\frac{1}{2}$   
 (3)  $\frac{73}{84}$  (4)  $\frac{37}{48}$   
 (SSC CHSL DEO & LDC Exam. 10.11.2013, IInd Sitting)

**4.** If  $A : B = \frac{1}{2} : \frac{1}{3}$ ,  $B : C = \frac{1}{5} : \frac{1}{3}$  then  $(A + B) : (B + C)$  is equal to  
 (1) 5 : 8 (2) 9 : 10  
 (3) 15 : 16 (4) 6 : 15  
 (SSC CGL Tier-II Exam. 12.04.2015) (TF No. 567 TL 9)

**5.** If  $\frac{x}{y} = \frac{3}{4}$ , the ratio of  $(2x + 3y)$  and  $(3y - 2x)$  is  
 (1) 2 : 1 (2) 3 : 2  
 (3) 1 : 1 (4) 3 : 1  
 (SSC CGL Tier-I Exam, 09.08.2015) (IInd Sitting) (TF No. 4239378)

**6.** Two numbers are in the ratio  $1 \frac{1}{2} : 2 \frac{2}{3}$ , when each of these is increased by 15, they are in the ratio  $1 \frac{2}{3} : 2 \frac{1}{2}$ . The greater of the numbers  
 (1) 27 (2) 36  
 (3) 48 (4) 64  
 (SSC CPO SI, ASI Online Exam.05.06.2016) (IInd Sitting)

**7.** If 177 is divided into 3 parts in the ratio  $\frac{1}{2} : \frac{2}{3} : \frac{4}{5}$ , then the second part is  
 (1) 75 (2) 45  
 (3) 72 (4) 60  
 (SSC CGL Tier-I (CBE) Exam. 01.09.2016) (1st Sitting)

**8.** A and B together have Rs. 6300. If  $\frac{5}{19}$ th of A's amount is equal to  $\frac{2}{5}$ th of B's amount. The amount of 'B' is  
 (1) Rs. 2500 (2) Rs. 3800  
 (3) Rs. 2300 (4) Rs. 4000  
 (SSC CGL Tier-I (CBE) Exam. 06.09.2016) (1st Sitting)

**9.** Find the fraction which bears the same ratio to  $\frac{1}{27}$  that  $\frac{3}{7}$  does to  $\frac{5}{9}$ .

## RATIO AND PROPORTION

(1)  $\frac{5}{9}$                       (2)  $\frac{1}{35}$

(3)  $\frac{45}{7}$                         (4)  $\frac{7}{45}$

(SSC CGL Tier-II (CBE)  
Exam. 30.11.2016)

10. Rs. 782 is divided into three parts in the ratio  $\frac{1}{2} : \frac{2}{3} : \frac{3}{4}$ , the

first part is

- (1) Rs. 182      (2) Rs. 204  
(3) Rs. 190      (4) Rs. 196

(SSC CGL Tier-I (CBE)  
Exam. 03.09.2016 (IInd Sitting))

11. The reciprocals of the squares of

the numbers  $1\frac{1}{2}$  and  $1\frac{1}{3}$  are

in the ratio

- (1) 64 : 81      (2) 8 : 9  
(3) 81 : 64      (4) 9 : 85

(SSC CGL Tier-I (CBE)  
Exam. 08.09.2016 (IInd Sitting))

### TYPE-III

1. There is a ratio of 5 : 4 between two numbers. If 40 per cent of the first is 12, then 50% of the second number is

- (1) 12                      (2) 24  
(3) 18                      (4) 20

(SSC Graduate Level Tier-II  
Exam.16.09.2012)

2. A milkman makes 20% profit by selling milk mixed with water at ₹ 9 per litre. If the cost price of 1 litre pure milk is ₹ 10, then the ratio of milk and water in the mixture is

- (1) 3 : 1                      (2) 4 : 1  
(3) 3 : 2                      (4) 4 : 3

(SSC CHSL DEO & LDC Exam.  
28.10.2012 (1st Sitting))

3. A man ordered 4 pairs of black socks and some pairs of brown socks. The price of a black socks is double that of a brown pair. While preparing the bill the clerk interchanged the number of black and brown pairs by mistake which increased the bill by 50%. The ratio of the number of black and brown pairs of socks in the original order was :

- (1) 2 : 1                      (2) 1 : 4  
(3) 1 : 2                      (4) 4 : 1

(SSC CAPFs SI & CISF ASI  
Exam. 23.06.2013)

4. The ratio of the number of boys and girls in a school is 8 : 12. If 50% of boys and 25% of girls are getting scholarships for their studies, what is the percentage of school students who are not getting any scholarships ?

- (1) 65                      (2) 66  
(3) 67                      (4) 68

(SSC CPO Exam. 06.06.2016)  
(1st Sitting)

5. In an ornament the ratio of gold and copper is 3 : 2. The percentage of gold in the ornament is :

- (1) 60                      (2) 40  
(3) 30                      (4) 20

(SSC CGL Tier-I (CBE)  
Exam. 07.09.2016 (IIIrd Sitting))

### TYPE-IV

1. The ratio of ages of two students is 3 : 2. One is older to the other by 5 years. What is the age of the younger student ?

- (2) 2 years                      (2) 10 years

- (3)  $2\frac{1}{2}$  years                      (4) 15 years

(SSC CGL Prelim Exam. 08.02.2004  
(First Sitting))

2. The ratio of present age of two brothers is 1 : 2 and 5 years back the ratio was 1 : 3. What will be the ratio of their age after 5 years ?

- (1) 1 : 4                      (2) 2 : 3  
(3) 3 : 5                      (4) 5 : 6

(SSC CGL Prelim Exam. 13.11.2005  
(First Sitting))

3. The sum of the age of a father and his son is 100 years now. 5 years ago their age were in the ratio of 2 : 1. The ratio of the age of father and son after 10 years will be

- (1) 5 : 3                      (2) 4 : 3  
(3) 10 : 7                      (4) 3 : 5

(SSC CGL Prelim Exam. 04.02.2007  
(First Sitting))

4. Four years ago, the ratio of A's age to B's age was 11 : 14 and four years later their age will be in the ratio 13 : 16. The present age of A is

- (1) 48 years                      (2) 26 years  
(3) 44 years                      (4) 28 years

(SSC CGL Prelim Exam. 27.07.2008  
(Second Sitting))

5. At present, the ratio of the age of Maya and Chhaya is 6 : 5 and fifteen years from now, the ratio will get changed to 9 : 8. Maya's present age is

- (1) 21 years                      (2) 24 years  
(3) 30 years                      (4) 40 years

(SSC CGL Tier-1 Exam. 19.06.2011  
(First Sitting))

6. The ratio of the age of Ram and Rahim 10 years ago was 1 : 3. The ratio of their age five years hence will be 2 : 3. Then the ratio of their present age is

- (1) 1 : 2                      (2) 3 : 5  
(3) 3 : 4                      (4) 2 : 5

(SSC CGL Tier-1 Exam. 26.06.2011  
(Second Sitting))

7. The ratio of the age of a father to that of his son is 5 : 2. If the product of their ages in years is 1000, then the father's age (in years) after 10 years will be :

- (1) 50                      (2) 60  
(3) 80                      (4) 100

(SSC CHSL DEO & LDC Exam.  
28.11.2010 (1st Sitting))

8. The ratio between Sumit's and Prakash's age at present is 2 : 3. Sumit is 6 years younger than Prakash. The ratio of Sumit's age to Prakash's age after 6 years will be

- (1) 2 : 3                      (2) 1 : 2  
(3) 4 : 3                      (4) 3 : 4

(SSC CHSL DEO & LDC Exam.  
28.10.2012 (1st Sitting))

9. Harsha is 40 years old and Ritu is 60 years old. How many years ago was the ratio of their ages 3 : 5 ?

- (1) 10 years                      (2) 20 years  
(3) 37 years                      (4) 5 years

(SSC CGL Prelim Exam. 24.02.2002  
(First Sitting))

10. The ratio of present age of two brothers is 1 : 2 and 5 years back the ratio was 1 : 3. What will be the ratio of their age after 5 years ?

- (1) 1 : 4                      (2) 2 : 3  
(3) 3 : 5                      (4) 5 : 6

(SSC CGL Prelim Exam. 24.02.2002  
(Second Sitting))

## RATIO AND PROPORTION

- 11.** Four years ago, the ratio of the age of A and B was 2 : 3 and after four years it will become 5 : 7. Find their present age.  
 (1) 36 years and 40 years  
 (2) 32 years and 48 years  
 (3) 40 years and 56 years  
 (4) 36 years and 52 years  
 (SSC CGL Prelim Exam. 24.02.2002 (Middle Zone))
- 12.** The average age of boys in the class is twice the number of girls in the class. The ratio of boys and girls in the class of 50 is 4 : 1. The total of the ages (in years) of the boys in the class is  
 (1) 2000 (2) 2500  
 (3) 800 (4) 400  
 (SSC CGL Tier-I Exam. 19.10.2014 TF No. 022 MH 3)
- 13.** The ratio of age of two boys is 5 : 6. After two years the ratio will be 7 : 8. The ratio of their age after 12 years will be  
 (1)  $\frac{22}{24}$  (2)  $\frac{15}{16}$   
 (3)  $\frac{17}{18}$  (4)  $\frac{11}{12}$   
 (SSC CPO S.I. Exam. 07.09.2003 & SSC CHSL DEO & LDC Exam. 20.10.2013)
- 14.** The ratio of the present age of Puneet and Appu is 2 : 3. After 3 years the ratio of their age will be 3 : 4. The present age of Puneet is :  
 (1) 3 years (2) 6 years  
 (3) 9 years (4) 4 years  
 (SSC CPO S.I. Exam. 26.05.2005)
- 15.** The ratio of the ages of a father and his son 10 years hence will be 5 : 3, while 10 years ago, it was 3:1. The ratio of the age of the son to that of the father today, is  
 (1) 1 : 2 (2) 1 : 3  
 (3) 2 : 3 (4) 2 : 5  
 (SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting))
- 16.** The ratio of the present age of Rahul and Rashmi is 2 : 1. The ratio of their age after 30 years will be 7 : 6. What is the present age of Rahul ?  
 (1) 6 years (2) 10 years  
 (3) 12 years (4) 20 years  
 (SSC CGL Prelim Exam. 04.02.2007 (Second Sitting))
- 17.** The present age of A and B are in the ratio 4 : 5 and after 5 years they will be in the ratio 5 : 6. The present age of A is  
 (1) 10 years (2) 20 years  
 (3) 25 years (4) 40 years  
 (SSC CGL Prelim Exam. 27.07.2008 (First Sitting))
- 18.** The present age of two persons are 36 and 50 years respectively. If after  $n$  years the ratio of their age will be 3 : 4, then the value of  $n$  is  
 (1) 4 (2) 7  
 (3) 6 (4) 3  
 (SSC Multi-Tasking Staff Exam. 17.03.2013, IInd Sitting)
- 19.** The ratio between Sumit's and Prakash's age at present is 2 : 3. Sumit is 6 years younger than Prakash. The ratio of Sumit's age to Prakash's age after 6 years will be  
 (1) 2 : 3 (2) 1 : 2  
 (3) 4 : 3 (4) 3 : 4  
 (SSC CHSL DEO & LDC Exam. 28.10.2012, Ist Sitting)
- 20.** The ratio of the ages of two persons is 4 : 7 and the age of one of them is greater than that of the other by 30 years. The sum of their ages (in years) is  
 (1) 110 (2) 100  
 (3) 70 (4) 40k  
 (SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)
- 21.** My grandfather was 9 times older than me 16 years ago. He will be 3 times of my age 8 years from now. Eight years ago, the ratio of my age to that of my grandfather was  
 (1) 3 : 8 (2) 2 : 5  
 (3) 1 : 2 (4) 1 : 5  
 (SSC CHSL DEO Exam. 02.11.2014 (Ist Sitting) & SSC CGL Prelim Exam. 11.05.2003 (Second Sitting))
- 22.** The ratio of the ages of A and B at present is 3:1. Four years earlier the ratio was 4:1. The present age of A is  
 (1) 48 years (2) 40 years  
 (3) 36 years (4) 32 years  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 (Ist Sitting) TF No. 8037731)
- 23.** Eighteen years ago, the ratio of A's age to B's age was 8 : 13. Their present ratios are 5 : 7. What is the present age of A ?  
 (1) 60 years (2) 70 years  
 (3) 50 years (4) 40 years  
 (SSC CGL Tier-I Exam, 09.08.2015 (1st Sitting) TF No. 1443088)
- 24.** The ratio of ages of two persons is 5 : 9 and the age of one of them is greater than the other by 40 years. The sum of their ages in year is  
 (1) 180 (2) 140  
 (3) 150 (4) 160  
 (SSC Constable (GD) Exam, 04.10.2015, Ist Sitting)
- 25.** The current ages of Sonali and Monali are in the ratio 5 : 3. Five years from now, their ages will be in the ratio 10 : 7. Then, Monali's current age is :  
 (1) 5 years (2) 3 years  
 (3) 9 years (4) 15 years  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (IInd Sitting) TF No. 3441135)
- 26.** If 4 years ago the ratio between the ages of P and Q was 5 : 6 and the sum of their ages at present is 52 years, what is the ratio of their present ages ?  
 (1) 5 : 6 (2) 6 : 7  
 (3) 7 : 8 (4) 4 : 5  
 (SSC CPO Exam. 06.06.2016 (Ist Sitting))
- 27.** The present ages of A and B are in the ratio 5 : 6 respectively. After seven years this ratio becomes 6 : 7. Then the present age of A in years is :  
 (1) 35 years (2) 32 years  
 (3) 33 years (4) 30 years  
 (SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016 (IInd Sitting))
- 28.** The ratio of the present ages of two boys is 3:4. After 3 years, the ratio of their ages is equal to will be 4:5. The ratio of their ages after 21 years will be  
 (1) 14:17 (2) 17:19  
 (3) 11:12 (4) 10:11  
 (SSC CGL Tier-I (CBE) Exam. 04.09.2016) (Ist Sitting)

## RATIO AND PROPORTION

29. The ratio of A's age to B's age is 4 : 3. 'A' will be 26 years old after 6 years. The age of B now is :

- (1)  $19\frac{1}{2}$  years  
 (2) 12 years  
 (3) 21 years (4) 15 years

(SSC CGL Tier-I (CBE)  
Exam. 08.09.2016 (IIIrd Sitting))

30. The present ages of A and B are in the ratio 3 : 4. Ten years ago, this ratio was 4 : 7. The present ages of A and B are respectively :

- (1) 18 years, 27 years  
 (2) 21 years, 28 years  
 (3) 24 years, 32 years  
 (4) 27 years, 36 years

(SSC CGL Tier-I (CBE)  
Exam. 27.10.2016 (1st Sitting))

### TYPE-V

1. The ratio of two numbers is 3 : 8 and their difference is 115. The smaller of the two numbers is :

- (1) 184 (2) 194  
 (3) 69 (4) 59

(SSC CGL Prelim Exam. 04.07.1999  
(Second Sitting))

2. Four numbers are in the ratio 1 : 2 : 3 : 4. Their sum is 16. The sum of the first and fourth number is equal to :

- (1) 5 (2) 8  
 (3) 10 (4) 80

(SSC CGL Prelim Exam. 04.07.1999  
(Second Sitting))

3. The sum of two numbers is 40 and their difference is 4. The ratio of the numbers is :

- (1) 21 : 19 (2) 22 : 9  
 (3) 11 : 9 (4) 11 : 18

(SSC CGL Prelim Exam. 27.02.2000  
(Second Sitting))

4. The ratio of two numbers is 10 : 7 and their difference is 105. The sum of these numbers is

- (1) 595 (2) 805  
 (3) 1190 (4) 1610

(SSC CGL Prelim Exam. 24.02.2002  
(Middle Zone))

5. The product of two positive integers is 1575 and their ratio is 9 : 7. The smaller integer is

- (1) 25 (2) 35  
 (3) 45 (4) 70

(SSC CGL Prelim Exam. 24.02.2002  
(Middle Zone))

6. Three numbers are in the ratio of 3 : 2 : 5 and the sum of their squares is 1862. The smallest of these numbers is

- (1) 24 (2) 21  
 (3) 14 (3) 35

(SSC CPO S.I. Exam. 12.01.2003)

7. The sum of three numbers is 116. The ratio of second to the third is 9 : 16 and the first to the third is 1 : 4. The second number is

- (1) 30 (2) 32  
 (3) 34 (4) 36

(SSC CPO S.I. Exam. 07.09.2003)

8. The sum of three numbers is 98. If the ratio of the first to the second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is

- (1) 49 (2) 48  
 (3) 30 (4) 20

(SSC CPO S.I. Exam. 07.09.2003)

9. In a 45 litres mixture of milk and water, the ratio of the milk to water is 2 : 1. When some quantity of water is added to the mixture, this ratio becomes 1 : 2. The quantity of water added is

- (1) 10 litres (2) 21 litres  
 (3) 35 litres (4) 45 litres

(SSC CPO S.I. Exam. 05.09.2004)

10. Of the three numbers, the ratio of the first and the second is 8 : 9 and that of the second and third is 3 : 4. If the product of the first and third number is 2400, then the second number is :

- (1) 45 (2) 40  
 (3) 30 (4) 55

(SSC CPO S.I. Exam. 26.05.2005)

11. Two numbers are in the ratio 2 : 3. If 2 is subtracted from the first and 2 is added to the second, the ratio becomes 1 : 2. The sum of the numbers is :

- (1) 30 (2) 28  
 (3) 24 (4) 10

(SSC CGL Prelim Exam. 13.11.2005  
(First Sitting))

12. Three numbers are in the ratio  $1 : 2 : 3$ . The difference between the greatest and the smallest number is 36. The numbers are

- (1) 72, 84, 108 (2) 60, 72, 96  
 (3) 72, 84, 96 (4) 72, 96, 108

(SSC CGL Prelim Exam. 13.11.2005  
(First Sitting))

13. The sum of three numbers is 68. If the ratio of the first to the second be 2 : 3 and that of the second to the third be 5 : 3, then the second number is

- (1) 30 (2) 58  
 (3) 20 (4) 48

(SSC CGL Prelim Exam. 04.02.2007  
(Second Sitting))

14. When a particular number is subtracted from each of 7, 9, 11 and 15, the resulting numbers are in proportion. The number to be subtracted is :

- (1) 1 (2) 2  
 (3) 3 (4) 5

(SSC CPO S.I. Exam. 16.12.2007)

15. The two numbers are in the ratio 2 : 3 and their product is 96. The sum of the numbers is

- (1) 5 (2) 20  
 (3) 101 (4) 102

(SSC CPO S.I. Exam. 06.09.2009)

16. The ratio between two numbers is 3 : 4. If each number is increased by 6, the ratio becomes 4 : 5. The difference between the numbers is

- (1) 1 (2) 3  
 (3) 6 (4) 8

(SSC CPO S.I. Exam. 06.09.2009)

17. Two numbers are in the ratio 5 : 7. On diminishing each of them by 40, they become in the ratio 17 : 27. The difference of the numbers is :

- (1) 18 (2) 52  
 (3) 137 (4) 50

(SSC CGL Prelim Exam. 24.02.2002  
(First Sitting))

18. Three numbers are in the ratio 5 : 6 : 7. If the product of the numbers is 5670, then the greatest number is

- (1) 15 (2) 18  
 (3) 21 (4) 28

(SSC CPO S.I. Exam. 06.09.2009)

19. Two numbers are in the ratio 1 : 3. If their sum is 240, then their difference is

- (1) 120 (2) 108  
 (3) 100 (4) 96

(SSC CGL Tier-I Exam. 16.05.2010  
(Second Sitting))

20. If the sum of two quantities is equal to three times their difference, then the ratio of the two quantities is

- (1) 1 : 3 (2) 3 : 1  
 (3) 2 : 1 (4) 2 : 3

(SSC CISF ASI Exam. 29.08.2010  
(Paper-1))



## RATIO AND PROPORTION

- 21.** Three numbers are in the ratio 3 : 4 : 5. The sum of the largest and the smallest equals the sum of the second and 52. The smallest number is  
 (1) 20 (2) 27  
 (3) 39 (4) 52  
 (SSC CGL Tier-1 Exam. 26.06.2011 (Second Sitting))
- 22.** Which number when added to each of the numbers 6, 7, 15, 17 will make the resulting numbers proportional?  
 (1) 6 (2) 5  
 (3) 4 (4) 3  
 (SSC Data Entry Operator Exam. 02.08.2009)
- 23.** What number should be added to each of 6, 14, 18 and 38 so that the resulting numbers make a proportion?  
 (1) 1 (2) 2  
 (3) 3 (4) 4  
 (SSC CHSL DEO & LDC Exam. 27.11.2010)
- 24.** Of three positive numbers, the ratio of 1st and 2nd is 8 : 9, that of 2nd and 3rd is 3:4. The product of 1st and 3rd is 2400. The sum of the three numbers is  
 (1) 145 (2) 185  
 (3) 295 (4) 155  
 (SSC Multi-Tasking Staff Exam. 10.03.2013, 1st Sitting : Patna)
- 25.** The ratio between a two – digit number and the sum of the digits of that number is 4 : 1. If the digit at the unit's place is 3 more than the digit at the ten's place, then the number is  
 (1) 47 (2) 69  
 (3) 36 (4) 25  
 (SSC Multi-Tasking Staff Exam. 10.03.2013, 1st Sitting : Patna)
- 26.** The ratio of number of balls in bags  $x, y$  is 2 : 3. Five balls are taken from bag  $y$  and are dropped in bag  $x$ . Number of balls are equal in each bag now. Number of balls in each bag now is  
 (1) 45 (2) 20  
 (3) 30 (4) 25  
 (SSC Graduate Level Tier-I Exam. 19.05.2013 1st Sitting)
- 27.** If the square of the sum of two numbers is equal to 4 times of their product, then the ratio of these numbers is :  
 (1) 2 : 1 (2) 1 : 3  
 (3) 1 : 1 (4) 1 : 2  
 (SSC CAPFs SI & CISF ASI Exam. 23.06.2013)
- 28.** Three numbers are in the ratio 2 : 3 : 4. If the sum of their squares is 1856, then the numbers are  
 (1) 8, 12 and 16  
 (2) 16, 24 and 32  
 (3) 12, 18 and 24  
 (4) None of the above  
 (SSC Graduate Level Tier-II Exam. 29.09.2013)
- 29.** The number to be added to each of the numbers 7, 16, 43, 79 to make the numbers in proportion is  
 (1) 2 (2) 3  
 (3) 5 (4) 1  
 (SSC Graduate Level Tier-I Exam. 11.11.2012, 1st Sitting)
- 30.** The average of two numbers is 62. If 2 is added to the smallest number, the ratio between the numbers becomes 1 : 2. The difference of the numbers is  
 (1) 62 (2) 40  
 (3) 84 (4) 44  
 FCI Assistant Grade-III Exam. 25.02.2012 (Paper-I) North Zone (1st Sitting)
- 31.** What number should be subtracted from both terms of the ratio 15 : 19 in order to make it 3 : 4 ?  
 (1) 9 (2) 6  
 (3) 5 (4) 3  
 (SSC CGL Prelim Exam. 27.02.2000 (First Sitting))
- 32.** The sum of two numbers is equal to 20 and their difference is 25. The ratio of the two numbers is  
 (1) 9 : 1 (2) 7 : 9  
 (3) 3 : 5 (4) 2 : 7  
 (SSC CGL Tier-II Exam. 21.09.2014)
- 33.** Two numbers are in the ratio of 2 : 3. If their sum is 125, find the numbers.  
 (1) 50, 75 (2) 24, 36  
 (3) 20, 30 (4) 32, 78  
 (SSC CHSL DEO Exam. 16.11.2014 (1st Sitting))
- 34.** The ratio of three positive numbers is 2 : 3 : 5 and the sum of their squares is 608. The three numbers are  
 (1) 2, 3, 5 (2) 10, 15, 25  
 (3) 8, 12, 20 (4) 4, 6, 10  
 (SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014, IIInd Sitting TF No. 545 QP 6)
- 35.** If the product of two positive numbers is 1575 and their ratio is 7 : 9, then the greater number is  
 (1) 45 (2) 35  
 (3) 135 (4) 63  
 (SSC CGL Tier-II Exam. 12.04.2015 TF No. 567 TL 9)
- 36.** If A and B are in the ratio 4 : 5 and the difference of their squares is 81, what is the value of A ?  
 (1) 45 (2) 12  
 (3) 36 (4) 15  
 (SSC CGL Tier-I Exam, 16.08.2015 (1st Sitting) TF No. 3196279)
- 37.** If two numbers are in the ratio 2 : 3 and the ratio becomes 3 : 4 when 8 is added to both the numbers, then the sum of the two numbers is  
 (1) 10 (2) 80  
 (3) 40 (4) 100  
 (SSC CGL Tier-I Exam, 16.08.2015 (IIInd Sitting) TF No. 2176783)
- 38.** Two numbers are in ratio 5 : 8. If their difference is 48, then the smaller number is  
 (1) 80 (2) 96  
 (3) 128 (4) 64  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 20.12.2015 (1st Sitting) TF No. 9692918)
- 39.** Three numbers are in the ratio 5:7:12. If the sum of the first and the third numbers is greater than the second number by 50. The sum of the three numbers is  
 (1) 125 (2) 120  
 (3) 95 (4) 85  
 (SSC CGL Tier-I (CBE) Exam. 30.08.2016) (1st Sitting)
- 40.** Two numbers whose sum is 84 can not be in the ratio  
 (1) 5 : 7 (2) 13 : 8  
 (3) 1 : 3 (4) 3 : 2  
 (SSC CGL Tier-I (CBE) Exam. 06.09.2016 (IIInd Sitting))
- 41.** Two numbers are in the ratio 3 : 5. If 6 is added to each of them, the ratio becomes 2 : 3. The numbers are  
 (1) 21 and 35 (2) 30 and 50  
 (3) 24 and 40 (4) 18 and 30  
 (SSC CGL Tier-I (CBE) Exam. 10.09.2016 (IIIrd Sitting))
- 42.** The sum of three numbers is 540. The ratio of second to third is 9 : 13 and that of first to third is 2 : 7. The third number is :  
 (1) 273 (2) 280  
 (3) 250 (4) 286  
 (SSC CGL Tier-I (CBE) Exam. 27.10.2016 (1st Sitting))

**TYPE-VI**

1. Two numbers are in the ratio 4 : 5 and their L.C.M. is 180. The smaller number is

(1) 9                      (2) 15  
(3) 36                     (4) 45

(SSC CPO S.I. Exam. 16.12.2007)

2. Two numbers are in the ratio 3 : 4 and their LCM is 180. The first number is

(1) 15                      (2) 60  
(3) 36                     (4) 45

(SSC SAS Exam. 26.06.2010

(Paper-1)

3. Two numbers are in the ratio 3 : 5 and their LCM is 225. The smaller number is

(1) 45                      (2) 60  
(3) 75                     (4) 90

(SSC CPO S.I.

Exam. 12.12.2010 (Paper-I)

4. The ratio of two numbers is 3 : 4 and their LCM is 48. The sum of the two numbers is :

(1) 32                      (2) 28  
(3) 26                     (4) 24

(SSC CHSL DEO & LDC

Exam. 28.11.2010 (Ist Sitting)

5. The ratio of two numbers is 3 : 4 and their LCM is 120. The sum of numbers is

(1) 105                     (2) 140  
(3) 70                      (4) 35

(SSC CHSL (10+2) LDC, DEO & PA/SA

Exam, 01.11.2015, IInd Sitting)

6. The ratio of two numbers is 3 : 4 and their HCF is 15. Then the sum of the two numbers is :

(1) 105                     (2) 115  
(3) 120                     (4) 110

(SSC CHSL (10+2) LDC, DEO

& PA/SA Exam, 06.12.2015

(Ist Sitting) TF No. 1375232)

**TYPE-VII**

1. A and B have money in the ratio 2 : 1. If A give ₹ 2 to B, the money will be in the ratio 1 : 1. What were the initial amounts they had?

(1) ₹ 12 and ₹ 6  
(2) ₹ 16 and ₹ 8  
(3) ₹ 8 and ₹ 4  
(4) ₹ 6 and ₹ 3

(SSC CGL Prelim Exam. 04.07.1999

(First Sitting)

2. The ratio of the number of boys and girls of a school with 504 students is 13 : 11. What will be the new ratio if 12 more girls are admitted?

(1) 91 : 81                (2) 81 : 91  
(3) 9 : 10                (4) 10 : 9

(SSC CGL Prelim Exam. 24.02.2002

(First Sitting)

3. Two numbers are in the ratio  $\frac{1}{2} : \frac{2}{3}$ . When each of these is increased by 15, they become in

the ratio  $\frac{1}{3} : \frac{2}{2}$ . The greater

of the numbers is :

(1) 27                      (2) 36  
(3) 48                      (4) 64

(SSC CGL Prelim Exam. 24.02.2002

& 13.11.2005 (IInd Sitting)

4. The students in three classes are in the ratio 2 : 3 : 5. If 40 students are increased in each class, the ratio changes to 4 : 5 : 7. Originally, the total number of students was :

(1) 100                     (2) 180  
(3) 200                     (4) 400

(SSC CGL Prelim Exam. 24.02.2002

(Second Sitting)

5. Two numbers are in the ratio 5 : 7. If 9 is subtracted from each of them, their ratio becomes 7 : 11. The difference of the numbers is

(1) 6                        (2) 12  
(3) 15                      (4) 18

(SSC CPO S.I. Exam. 12.01.2003

6. Two numbers are in the ratio 3 : 5. If 9 is subtracted from each, then they are in the ratio 12 : 23. Find the smaller number.

(1) 27                      (2) 33  
(3) 49                      (4) 55

(SSC Section Officer (Commercial Audit)

Exam. 16.11.2003)

7. The ratio of number of boys to that of girls in a group becomes 2:1 when 15 girls leave. But, afterwards, when 45 boys also leave, the ratio becomes 1 : 5. Originally the number of girls in the group was

(1) 20                      (2) 30  
(3) 40                      (4) 50

(SSC CPO S.I. Exam. 05.09.2004)

8. The students in three classes are in the ratio 2 : 3 : 5. If 20 students are increased in each class, the ratio changes to 4 : 5 : 7. Originally the total number of students was :

(1) 50                      (2) 90  
(3) 100                     (4) 150

(SSC CGL Prelim Exam. 24.02.2002,

13.11.2005 (Ist Sitting) &

04.02.2007 (IInd sitting), & SSC CHSL

DEO & LDC Exam, 28.10.2012)

9. The ratio of the number of boys

and that of girls in a school having 504 students is 13 : 11. What will be the new ratio if 3 more girls are admitted?

(1) 7 : 6                    (2) 6 : 7  
(3) 10 : 11                (4) 13 : 14

(SSC CPO S.I. Exam. 03.09.2006)

10. The ratio of the number of ladies to that of gents at a party was 3 : 2. When 20 more gents joined the party, the ratio was reversed. The number of ladies present at the party was

(1) 36                      (2) 32  
(3) 24                      (4) 16

(SSC CPO S.I. Exam. 03.09.2006)

11. In a school having roll strength 286, the ratio of boys and girls is 8 : 5. If 22 more girls get admitted into the school, the ratio of boys and girls becomes

(1) 12 : 7                    (2) 10 : 7  
(3) 8 : 7                    (4) 4 : 3

(SSC CGL Prelim Exam. 04.02.2007

(First Sitting)

12. The number of students in three classes are in the ratio 2 : 3 : 4. If 12 students are increased in each class, this ratio changes to 8 : 11 : 14. The total number of students in the three classes at the beginning was

(1) 162                     (2) 108  
(3) 96                      (4) 54

(SSC CGL Prelim Exam. 27.07.2008

(First Sitting)

13. What must be added to each term of the ratio 7 : 11, so as to make it equal to 3 : 4 ?

(1) 8                        (2) 7.5  
(3) 6.5                     (4) 5

(SSC CGL Tier-I Exam. 16.05.2010

(First Sitting)

14. Two numbers are in the ratio 7 : 11. If 7 is added to each of the numbers, the ratio becomes 2 : 3. The smaller number is

(1) 39                      (2) 49  
(3) 66                      (4) 77

(SSC CGL Tier-I Exam. 16.05.2010

(Second Sitting)

## RATIO AND PROPORTION

- 15.** Two numbers are in the ratio 3 : 5. If each number is increased by 10, the ratio becomes 5 : 7. The smaller number is  
(1) 9 (2) 12  
(3) 15 (4) 25  
(SSC (South Zone) Investigator Exam. 12.09.2010)
- 16.** The ratio between two numbers is 2 : 3. If each number is increased by 4, the ratio between them becomes 5 : 7. The difference between the numbers is  
(1) 8 (2) 6  
(3) 4 (4) 2  
(SSC CGL Tier-1 Exam. 19.06.2011 (Second Sitting))
- 17.** What number should be added to or subtracted from each term of the ratio 17 : 24 so that it becomes equal to 1 : 2 ?  
(1) 5 is subtracted  
(2) 10 is added  
(3) 7 is added  
(4) 10 is subtracted  
(SSC CGL Tier-1 Exam. 26.06.2011 (First Sitting))
- 18.** Two numbers are such that the ratio between them is 4 : 7. If each is increased by 4, the ratio becomes 3 : 5. The larger number is  
(1) 36 (2) 48  
(3) 56 (4) 64  
(SSC Constable (GD) & Rifleman (GD) Exam. 22.04.2012 (1st Sitting))
- 19.** The students in three classes are in the ratio 4 : 6 : 9. If 12 students are increased in each class, the ratio changes to 7 : 9 : 12. Then the total number of students in the three classes before the increase is  
(1) 95 (2) 76  
(3) 100 (4) 114  
(SSC Graduate Level Tier-II Exam. 16.09.2012)
- 20.** The total number of students in a school was 660. The ratio between boys and girls was 13 : 9. After some days, 30 girls joined the school and some boys left the school and new ratio between boys and girls became 6 : 5. The number of boys who left the school is :  
(1) 50 (2) 40  
(3) 30 (4) 60  
(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
- 21.** If there is a reduction in the number of workers in a factory in the ratio 15 : 11 and an increment in their wage in the ratio 22 : 25, then the ratio by which the total wage of the workers should be decreased is  
(1) 6 : 5 (2) 5 : 6  
(3) 3 : 7 (4) 3 : 5  
(SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting))
- 22.** Two numbers are in the ratio of 3 : 5. If 9 be subtracted from each, then they are in the ratio of 12 : 23. Find the numbers.  
(1) 15, 28 (2) 36, 115  
(3) 33, 55 (4) 60, 69  
(SSC Delhi Police S.I. (SI) Exam. 19.08.2012)
- 23.** Three numbers are in the ratio 1 : 2 : 3. By adding 5 to each of them, the new numbers are in the ratio 2 : 3 : 4. The numbers are:  
(1) 10, 20, 30 (2) 15, 30, 45  
(3) 1, 2, 3 (4) 5, 10, 15  
(SSC Graduate Level Tier-I Exam. 21.04.2013, 1st Sitting)
- 24.** Ram got twice as many marks in English as in Science. His total marks in English, Science and Maths are 180. If the ratio of his marks in English and Maths is 2 : 3, what is his marks in Science ?  
(1) 30 (2) 60  
(3) 72 (4) 90  
(SSC Graduate Level Tier-II Exam. 29.09.2013)
- 25.** What number should be subtracted from both the terms of the ratio 11 : 15 so as to make it as 2 : 3 ?  
(1) 2 (2) 3  
(3) 4 (4) 5  
(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)
- 26.** Two numbers are in the ratio of 3 : 5. If 9 is subtracted from each then they are in the ratio 12 : 23. The smaller number is  
(1) 55 (2) 33  
(3) 28 (4) 36  
(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)
- 27.** The average of 11 numbers is 36, whereas average of 9 of them is 34. If the remaining two numbers are in the ratio of 2 : 3, find the value of the smaller number (between remaining two numbers).  
(1) 45 (2) 48  
(3) 54 (4) 36  
(SSC CGL Tier-II Exam, 2014 12.04.2015 (Kolkata Region) TF No. 789 TH 7)
- 28.** The ratio of number of boys to the number of girls in a school of 432 pupils is 5 : 4. When some new boys and girls are admitted, the number of boys increase by 12 and the ratio of the boys to girls changes to 7 : 6. The number of new girls admitted is  
(1) 12 (2) 14  
(3) 24 (4) 20  
(SSC CGL Tier-II (CBE) Exam. 30.11.2016)
- 29.** If the ratio of two numbers is 1 : 5 and their product is 320, then the difference between the squares of these two numbers is :  
(1) 1024 (2) 1256  
(3) 1536 (4) 1435  
(SSC CGL Tier-I (CBE) Exam. 06.09.2016 (IInd Sitting))
- 30.** The ratio of two positive numbers is 3 : 4. The sum of their squares is 400. What is the sum of the numbers ?  
(1) 28 (2) 22  
(3) 24 (4) 26  
(SSC CGL Tier-I (CBE) Exam. 10.09.2016 (IInd Sitting))
- 31.** Three numbers are in the ratio 1 : 2 : 3 and the sum of their cubes is 4500. The smallest number is  
(1) 4 (2) 5  
(3) 6 (4) 10  
(SSC CGL Tier-I (CBE) Exam. 11.09.2016 (IInd Sitting))

### TYPE-VIII

- 1.** Zinc and copper are in the ratio of 5 : 3 in 200 gm of an alloy. How much grams of copper be added to make the ratio as 3 : 5?  
(1)  $133\frac{1}{3}$  (2)  $\frac{1}{200}$   
(3) 72 (4) 66  
(SSC CGL Prelim Exam. 24.02.2002 (First Sitting))
- 2.** The ratio of copper and zinc in brass is 13 : 7. How much zinc will be there in 100 kg of brass ?  
(1) 20 kg. (2) 55 kg.  
(3) 35 kg. (4) 40 kg.  
(SSC CGL Prelim Exam. 24.02.2002 (Second Sitting))

## RATIO AND PROPORTION

3. In 30 litres mixture of acid, the ratio of acid and water is 2 : 3 . What amount of water should be added to the mixture so that the ratio of acid and water becomes 2 : 5 ?  
 (1) 10 litres (2) 15 litres  
 (3) 18 litres (4) 12 litres  
 (SSC CGL Prelim Exam. 24.02.2002 (Middle Zone))
4. In an alloy, the ratio of copper and zinc is 5 : 2. If 1.250 kg of zinc is mixed in 17 kg 500 g of alloy, then the ratio of copper and zinc will be  
 (1) 2 : 1 (2) 2 : 3  
 (3) 3 : 2 (4) 1 : 2  
 (SSC CGL Prelim Exam. 11.05.2003 (First Sitting))
5. There are three containers of equal capacity. The ratio of Sulphuric acid to water in the first container is 3 : 2, that in the second container is 7 : 3 and in the third container it is 11 : 4. If all the liquids are mixed together, then the ratio of Sulphuric acid to water in the mixture will be :  
 (1) 61 : 29 (2) 61 : 28  
 (3) 60 : 29 (4) 59 : 29  
 (SSC CGL Prelim Exam. 08.02.2004 (Second Sitting))
6. 200 litres of a mixture contains milk and water in the ratio 17 : 3. After the addition of some more milk to it, the ratio of milk to water in the resulting mixture becomes 7 : 1. The quantity of milk added to it was  
 (1) 20 litres (2) 40 litres  
 (3) 60 litres (4) 80 litres  
 (SSC Section Officer (Commercial Audit) Exam. 30.09.2007 (Second Sitting))
7. A can contains a mixture of two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. Litres of liquid A obtained by the can initially was  
 (1) 10 (2) 20  
 (3) 21 (4) 25  
 (SSC CGL Tier-1 Exam. 26.06.2011 (First Sitting))
8. A container contains two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the container is filled with B, the ratio of A and B becomes 1:1. How many litres of liquid A was in the container initially ?  
 (1) 26 (2)  $16\frac{1}{2}$   
 (3)  $36\frac{3}{4}$  (4)  $26\frac{3}{4}$   
 (SSC CHSL DEO & LDC Exam. 11.12.2011 (1st Sitting (East Zone)))
9. A and B are two alloys of gold and copper prepared by mixing metals in ratios 7 : 2 and 7 : 11 respectively. If equal quantities of the alloys are melted to form a third alloy C, the ratio of gold and copper in C will be ;  
 (1) 7 : 5 (2) 5 : 9  
 (3) 9 : 5 (4) 5 : 7  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
10. The ratio in which a man must mix rice at ₹ 10.20 per kg and ₹ 14.40 per kg so as to make a mixture worth ₹ 12.60 per kg, is  
 (1) 4 : 3 (2) 2 : 5  
 (2) 18 : 24 (4) 3 : 4  
 (SSC Multi-Tasking Staff Exam. 17.03.2013, IInd Sitting)
11. A mixture contains spirit and water in the ratio 3 : 2. If it contains 3 litres more spirit than water, the quantity of spirit in the mixture is  
 (1) 10 litres (2) 12 litres  
 (3) 8 litres (4) 9 litres  
 (SSC CGL Prelim Exam. 11.05.2003 (Second Sitting))
12. A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup ?  
 (1)  $\frac{1}{3}$  (2)  $\frac{1}{4}$   
 (3)  $\frac{1}{5}$  (4)  $\frac{1}{7}$   
 (SSC Delhi Police S.I. (SI) Exam. 19.08.2012)
13. Two vessels A and B contain milk and water mixed in the ratio 4 : 3 and 2 : 3. The ratio in which these mixtures be mixed to form a new mixture containing half milk and half water is  
 (1) 7 : 5 (2) 6 : 5  
 (3) 5 : 6 (4) 4 : 3  
 (SSC CHSL DEO & LDC Exam. 28.10.2012 (1st Sitting) & (SSC MTS Exam. 17.03.2013 (Kolkata) 11.11.2011 & 04.02.2011))
14. A container contains 60 kg of milk. From this container 6 kg of milk was taken out and replaced by water. This process was repeated further two times. The amount of milk left in the container is  
 (1) 34.24 kg (2) 39.64 kg  
 (3) 43.74 kg (4) 47.6 kg  
 (SSC CHSL DEO & LDC Exam. 28.10.2012, 1st Sitting)
15. The proportion of acid and water in three samples is 2 : 1, 3 : 2 and 5 : 3. A mixture containing equal quantities of all three samples is made. The ratio of water and acid in the mixture is :  
 (1) 120 : 133 (2) 227 : 133  
 (3) 227 : 120 (4) 133 : 227  
 (SSC CAPFs SI & CISF ASI Exam. 23.06.2013)
16. Two alloys are both made up of copper and tin. The ratio of copper and tin in the first alloy is 1 : 3 and in the second alloy is 2 : 5. In what ratio should the two alloys be mixed to obtain a new alloy in which the ratio of tin and copper be 8 : 3 ?  
 (1) 3 : 5 (2) 4 : 7  
 (3) 3 : 8 (4) 5 : 11  
 (SSC CHSL DEO & LDC Exam. 27.10.2013 IInd Sitting)
17. A mixture contains alcohol and water in the ratio 4 : 3. If 5 litres of water is added to the mixture, the ratio becomes 4 : 5. The quantity of alcohol in the given mixture is  
 (1) 3 litres (2) 4 litres  
 (3) 15 litres (4) 10 litres  
 (SSC CHSL DEO & LDC Exam. 27.10.2013 IInd Sitting)
18. In two alloys A and B, the ratio of zinc to tin is 5 : 2 and 3 : 4 respectively. Seven kg of the alloy A and 21 kg of the alloy B are mixed together to form a new alloy. What will be the ratio of zinc and tin in the new alloy ?  
 (1) 2 : 1 (2) 1 : 2  
 (3) 2 : 3 (4) 1 : 1  
 (SSC CHSL DEO & LDC Exam. 10.11.2013, 1st Sitting)

## RATIO AND PROPORTION

19. Zinc and copper are in the ratio 5 : 3 in 400 gm of an alloy. How much of copper (in grams) should be added to make the ratio 5 : 4?

- (1) 50                      (2) 66  
(3) 72                      (4) 200

(SSC CHSL DEO & LDC Exam. 10.11.2013, IInd Sitting)

20. Two vessels A and B contain milk and water mixed in the ratio 8 : 5 and 5 : 2 respectively. The ratio in which these two mixtures be mixed to get a new mixture

containing  $69\frac{3}{13}$  % milk is:

- (1) 3 : 5                      (2) 5 : 2  
(3) 5 : 7                      (4) 2 : 7

(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))

21. A mixture of 30 litres contain milk and water in the ratio of 7 : 3. How much water should be added to it so that the ratio of milk and water becomes 3 : 7 ?

- (1) 40 litres    (2) 49 litres  
(3) 56 litres    (4) 63 litres

(SSC CPO S.I. Exam. 07.09.2003)

22. A barrel contains a mixture of wine and water in the ratio 3 : 1. How much fraction of the mixture must be drawn off and substituted by water so that the ratio of wine and water in the resultant mixture in the barrel becomes 1 : 1 ?

- (1)  $\frac{1}{4}$                       (2)  $\frac{1}{3}$   
(3)  $\frac{3}{4}$                       (4)  $\frac{2}{3}$

(SSC CGL Prelim Exam. 08.02.2004 (First Sitting))

23. There is 81 litres pure milk in a container. One-third of milk is replaced by water in the container. Again one-third of mixture is extracted and equal amount of water is added. What is the ratio of milk to water in the new mixture?

- (1) 1 : 2                      (2) 1 : 1  
(3) 2 : 1                      (4) 4 : 5

(SSC Section Officer (Commercial Audit) Exam. 25.09.2005)

24. In 80 litres mixture of milk and water the ratio of amount of milk to that of amount of water is 7 : 3. In order to make this ratio 2 : 1, how many litres of water should be added ?

- (1) 5                      (2) 6  
(3) 8                      (4) 4

(SSC Section Officer (Commercial Audit) Exam. 25.09.2005)

25. Vessels A and B contain mixtures of milk and water in the ratios 4 : 5 and 5 : 1 respectively. In what ratio should quantities of mixture be taken from A and B to form a mixture in which milk to water is in the ratio 5 : 4?

- (1) 2 : 5                      (2) 4 : 3  
(3) 5 : 2                      (4) 2 : 3

(SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting))

26. The milk and water in a mixture are in the ratio 7 : 5. When 15 litres of water are added to it, the ratio of milk and water in the new mixture becomes 7 : 8. The total quantity of water in the new mixture is

- (1) 35 litres    (2) 40 litres  
(3) 60 litres    (4) 96 litres

(SSC CPO S.I. Exam. 16.12.2007)

27. In a 729 litres mixture of milk and water, the ratio of milk to water is 7 : 2. To get a new mixture containing milk and water in the ratio 7 : 3, the amount of water to be added is

- (1) 81 litres    (2) 71 litres  
(3) 56 litres    (4) 50 litres

(SSC CGL Prelim Exam. 27.07.2008 (First Sitting))

28. In 40 litres mixture of milk and water the ratio of milk to water is 7 : 1. In order to make the ratio of milk and water 3 : 1, the quantity of water (in litres) that should be added to the mixture will be

- (1) 6                      (2)  $6\frac{1}{2}$   
(3)  $6\frac{2}{3}$                       (4)  $6\frac{3}{4}$

(SSC CGL Prelim Exam. 27.07.2008 (First Sitting))

29. A jar contained a mixture of two liquids A and B in the ratio 4 : 1. When 10 litres of the mixture was taken out and 10 litres of liquid B was poured into the jar, this ratio became 2 : 3. The quantity of liquid A contained in the jar initially was

- (1) 4 litres    (2) 8 litres  
(3) 16 litres    (4) 40 litres

(SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))

30. In a mixture of 75 litres, the ratio of milk to water is 2 : 1. The amount of water to be further added to the mixture so as to make the ratio of the milk to water 1 : 2 will be

- (1) 45 litres    (2) 60 litres  
(3) 75 litres    (4) 80 litres

(SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))

31. A and B are two alloys of gold and copper prepared by mixing metals in the ratio 5 : 3 and 5 : 11 respectively. Equal quantities of these alloys are melted to form a third alloy C. The ratio of gold and copper in the alloy C is

- (1) 25 : 33    (2) 33 : 25  
(3) 15 : 17    (4) 17 : 15

(SSC CPO S.I. Exam. 09.11.2008)

32. A mixture contains wine and water in the ratio 3 : 2 and another mixture contains them in the ratio 4 : 5. How many litres of the later must be mixed with 3 litres of the former so that the resulting mixture may contain equal quantities of wine and water ?

- (1)  $5\frac{2}{5}$  litres    (2)  $5\frac{2}{3}$  litres  
(3)  $4\frac{1}{2}$  litres    (4)  $3\frac{3}{4}$  litres

(SSC SAS Exam. 26.06.2010 (Paper-1))

33. The ratio of the volume of water and glycerine in 240 cc of a mixture is 1 : 3. The quantity of water (in cc) that should be added to the mixture so that the new ratio of the volumes of water and glycerine becomes 2:3 is

- (1) 55 cc                      (2) 60 cc  
(3) 62.5 cc                      (4) 64 cc

(SSC CGL Tier-1 Exam. 19.06.2011)

(First Sitting)

34. The ratio of the quantities of an acid and water in a mixture is 1 : 3. If 5 litres of acid is further added to the mixture, the new ratio becomes 1 : 2. The quantity of new mixture (in litres) is

- (1) 32                      (2) 40  
(3) 42                      (4) 45

(SSC CGL Tier-1 Exam. 19.06.2011 (Second Sitting))

## RATIO AND PROPORTION

- 35.** In a mixture of 25 litres, the ratio of acid to water is 4 : 1. Another 3 litres of water is added to the mixture. The ratio of acid to water in the new mixture is  
 (1) 5 : 2            (2) 2 : 5  
 (3) 3 : 5            (4) 5 : 3  
 (SSC CPO (SI, ASI & Intelligence Officer) Exam. 28.08.2011 (Paper-I))
- 36.** Two equal vessels are filled with the mixtures of water and milk in the ratio of 3:4 and 5:3 respectively. If the mixtures are poured into a third vessel, the ratio of water and milk in the third vessel will be  
 (1) 15 : 12            (2) 53 : 59  
 (3) 20 : 9            (4) 59 : 53  
 (SSC CGL Tier-1 Exam 19.06.2011 (First Sitting))
- 37.** Two types of alloy possess gold and silver in the ratio of 7 : 22 and 21 : 37. In what ratio should these alloys be mixed so as to have a new alloy in which gold and silver would exist in the ratio 25 : 62 ?  
 (1) 13 : 8            (2) 8 : 13  
 (3) 13 : 12            (4) 6 : 9  
 (SSC Data Entry Operator Exam. 31.08.2008)
- 38.** In one glass, milk and water are mixed in the ratio 3 : 5 and in another glass they are mixed in the ratio 6 : 1. In what ratio should the contents of the two glasses be mixed together so that the new mixture contains milk and water in the ratio 1 : 1 ?  
 (1) 20 : 7            (2) 8 : 3  
 (3) 27 : 4            (4) 25 : 9  
 (SSC Data Entry Operator Exam. 02.08.2009)
- 39.** In a mixture of 60 litres, the ratio of milk and water is 2 : 1. How much more water must be added to make its ratio 1 : 2 ?  
 (1) 40 litres            (2) 52 litres  
 (3) 54 litres            (4) 60 litres  
 (SSC CHSL DEO & LDC Exam. 27.11.2010)
- 40.** Two vessels A and B contains acid and water in the ratio 4 : 3 and 5 : 3 respectively. Then the ratio in which these mixtures to be mixed to obtain a new mixture in vessel C containing acid and water in the ratio 3 : 2 is  
 (1) 5 : 8            (2) 7 : 8  
 (3) 7 : 5            (4) 4 : 7  
 (SSC CHSL DEO & LDC Exam. 04.12.2011 (1st Sitting (North Zone)))
- 41.** Two containers have acid and water mixed respectively in the ratio 3 : 1 and 5 : 3. To get a new mixture with ratio of acid to water as 2 : 1, the two types have to be mixed in the ratio  
 (1) 1 : 2            (2) 2 : 1  
 (3) 2 : 3            (4) 3 : 2  
 (SSC CHSL DEO & LDC Exam. 04.12.2011 (IInd Sitting (North Zone)))
- 42.** Acid and water are mixed in a vessel A in the ratio of 5 : 2 and in the vessel B in the ratio 8 : 5. In what proportion should quantities be taken out from the two vessels so as to form a mixture in which the acid and water will be in the ratio of 9 : 4?  
 (1) 7 : 2            (2) 2 : 7  
 (3) 7 : 4            (4) 2 : 3  
 (SSC CHSL DEO & LDC Exam. 04.12.2011 (1st Sitting (East Zone)))
- 43.** The ratio of spirit and water in two mixtures of 20 litre and 36 litre is 3 : 7 and 7 : 5 respectively. Both the mixtures are mixed together. Now the ratio of the spirit and water in the new mixture is  
 (1) 25 : 29            (2) 9 : 10  
 (3) 27 : 29            (4) 27 : 31  
 (SSC CHSL DEO & LDC Exam. 11.12.2011 (1st Sitting (Delhi Zone)))
- 44.** Alcohol and water in two vessels A and B are in the ratio 5 : 3 and 5 : 4 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C in the ratio 7 : 5 ?  
 (1) 2 : 3            (2) 3 : 2  
 (3) 3 : 5            (4) 2 : 5  
 (SSC CHSL DEO & LDC Exam. 11.12.2011 (IInd Sitting (East Zone)))
- 45.** Two vessels contain milk and water in the ratio 3 : 2 and 7 : 3. Find the ratio in which the contents of the two vessels have to be mixed to get a new mixture in which the ratio of milk and water is 2 : 1.  
 (1) 2 : 1            (2) 1 : 2  
 (3) 4 : 1            (4) 1 : 4  
 (SSC Graduate Level Tier-II Exam. 16.09.2012)
- 46.** In two types of stainless steel, the ratio of chromium and steel are 2 : 11 and 5 : 21 respectively. In what proportion should the two types be mixed so that the ratio of chromium to steel in the mixed type becomes 7 : 32 ?  
 (1) 2 : 3            (2) 3 : 4  
 (3) 1 : 2            (4) 1 : 3  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (1st Sitting))
- 47.** A and B are two alloys of gold and copper in the ratio 7 : 2 and 7 : 11 respectively. If equal quantities of these two alloys are melted to form a new alloy C, then the ratio of gold and copper in C is  
 (1) 6 : 5            (2) 9 : 4  
 (3) 12 : 7            (4) 7 : 5  
 (SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting))
- 48.** A Can contains a mixture of two liquids A and B in the ratio 7:5. When 9 litres of mixture are drained off and the Can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the Can initially?  
 (1) 10 litres            (2) 20 litres  
 (3) 21 litres            (4) 25 litres  
 (SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting))
- 49.** The ratio of milk and water in mixtures of four containers are 5 : 3, 2 : 1, 3 : 2 and 7 : 4 respectively. In which container is the quantity of milk, relative to water, minimum ?  
 (1) First            (2) Second  
 (3) Third            (4) Fourth  
 (SSC CGL Tier-I Exam. 16.05.2010 (Second Sitting))
- 50.** An alloy contains copper, zinc and nickel in the ratio of 5 : 3 : 2. The quantity of nickel (in kg) that must be added to 100 kg of this alloy to have the new ratio 5 : 3 : 3 is  
 (1) 8            (2) 10  
 (3) 12            (4) 15  
 (SSC CGL Tier-1 Exam. 26.06.2011 (Second Sitting))
- 51.** In an alloy, zinc and copper are in the ratio 1 : 2. In the second alloy, the same elements are in the ratio 2 : 3. If these two alloys be mixed to form a new alloy in which two elements are in the ratio 5 : 8, the ratio of these two alloys in the new alloy is  
 (1) 3 : 10            (2) 3 : 7  
 (3) 10 : 3            (4) 7 : 3  
 (SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))

52. A liquid 'P' is  $1\frac{3}{7}$  times as heavy

as water and water is  $1\frac{2}{5}$  times as heavy as another liquid 'Q'. The amount of liquid 'P' that must be added to 7 litres of the liquid 'Q' so that the mixture may weigh as much as an equal volume of water, will be

- (1) 7 litres      (2)  $5\frac{1}{6}$  litres  
(3) 5 litres      (4)  $4\frac{2}{3}$  litres

(SSC CGL Prelim Exam.  
04.02.2007 (First Sitting))

53. The milk and water in two vessels A and B are in the ratio 4 : 3 and 2 : 3 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C containing half milk and half water ?

- (1) 7 : 5          (2) 5 : 2  
(3) 3 : 11        (4) 1 : 2

(SSC CGL Tier-I Exam. 19.10.2014)

54. There are two containers of equal capacity. The ratio of milk to water in the first container is 3 : 1, in the second container 5 : 2. If they are mixed up, the ratio of milk to water in the mixture will be

- (1) 28 : 41      (2) 41 : 28  
(3) 15 : 41      (4) 41 : 15

(SSC CGL Tier-II Exam. 21.09.2014)

55. Two equal glasses filled with alcohol and water in the proportions 2 : 1 and 3 : 2 are emptied into a third glass. The proportion of alcohol and water in the third glass will be

- (1) 13 : 17      (2) 19 : 17  
(3) 13 : 11      (4) 19 : 11

(SSC CAPFs SI, CISF ASI & Delhi  
Police SI Exam. 22.06.2014)

56. A vessel full of pure acid contains 10 litres of it, of which 2 litres are withdrawn. The vessel is then filled with water. Next 2 litres of the mixture are withdrawn, and again the vessel is filled up with water. The ratio of the acid left in the vessel with that of the original quantity is

- (1) 1 : 5          (2) 4 : 5  
(3) 4 : 25        (4) 16 : 25

(SSC CGL Tier-I Exam. 19.10.2014  
TF No. 022 MH 3)

57. Gold is 19 times as heavy as water and copper is 9 times as heavy as water. In what ratio should these be mixed to get an alloy 15 times as heavy as water ?

- (1) 1 : 1          (2) 1 : 2  
(3) 2 : 3          (4) 3 : 2

(SSC CGL Tier-I Exam. 19.10.2014  
TF No. 022 MH 3)

58. 80 litres of a mixture contains milk and water in the ratio of 27 : 5. How much more water is to be added to get a mixture containing milk and water in the ratio of 3 : 1 ?

- (1) 5 litres      (2) 10 litres  
(3) 15 litres    (4) 20 litres

(SSC CHSL (10+2) DEO & LDC  
Exam. 16.11.2014, 1st Sitting  
TF No. 333 LO 2)

59. The ratio of two liquids in a mixture is 3 : 5 and that in another mixture is 6 : 1. The ratio in which these two mixtures should be mixed so as to make the ratio of the liquids 7 : 3 is

- (1) 44 : 71      (2) 44 : 81

- (3) 44 : 91      (4) 44 : 61

(SSC CGL Tier-II Exam,  
2014 12.04.2015 (Kolkata Region)  
TF No. 789 TH 7)

60. A vessel contains 20 litres of acid. 4 litres of acid is taken out of the vessel and replaced by the same quantity of water. Next 4 litres of the mixture are withdrawn, and again the vessel is filled with the same quantity of acid left in the vessel with the quantity of acid initially in the vessel is

- (1) 4 : 5          (2) 4 : 25

- (3) 16 : 25      (4) 1 : 5

(SSC CGL Tier-II Exam,  
2014 12.04.2015 (Kolkata Region)  
TF No. 789 TH 7)

61. In two blends of mixed tea, the ratios of Darjeeling and Assam tea are 4 : 7 and 2 : 5. The ratio in which these two blends should be mixed to get the ratio of Darjeeling and Assam tea in the new mixture as 6 : 13 is

- (1) 22 : 35      (2) 26 : 35

- (3) 35 : 78      (4) 13 : 22

(SSC CGL Tier-II Exam,  
2014 12.04.2015 (Kolkata Region)  
TF No. 789 TH 7)

62. In a mixture of three varieties of tea, the ratio of their weights is 4 : 5 : 8. If 5 kg tea of the first variety, 10 kg tea of the second variety and some quantity of tea of the third variety are added to the mixture, the ratio of the weights of three varieties of tea becomes as 5 : 7 : 9. In the final mixture, the quantity (in kg) of the third variety of tea was

- (1) 42            (2) 45

- (3) 48            (4) 40

(SSC CGL Tier-II Exam,

2014 12.04.2015 (Kolkata Region)

TF No. 789 TH 7)

63. Three vessels whose capacities are 3 : 2 : 1 are completely filled with milk mixed with water. The ratio of milk and water in the mixture of vessels are 5 : 2, 4 : 1 and 4 : 1 respectively.

Taking  $\frac{1}{3}$  of first,  $\frac{1}{2}$  of second

and  $\frac{1}{7}$  of third mixtures, a

new mixture kept in a new vessel is prepared. The percentage of water in the new mixture is

- (1) 28            (2) 32

- (3) 30            (4) 24

(SSC CAPFs SI, CISF ASI & Delhi  
Police SI Exam, 21.06.2015  
IInd Sitting)

64. 729 ml of a mixture contains milk and water in the ratio 7 : 2. How much more water is to be added to get a new mixture containing milk and water in the ratio 7 : 3 ?

- (1) 81 ml        (2) 60 ml

- (3) 71 ml        (4) 52 ml

(SSC CGL Tier-I Exam, 09.08.2015  
(1st Sitting) TF No. 1443088)

65. Two alloys contain tin and iron in the ratio of 1 : 2 and 2 : 3. If the two alloys are mixed in the proportion of 3 : 4 respectively (by weight), the ratio of tin and iron in the newly formed alloy is :

- (1) 10 : 21      (2) 13 : 22

- (3) 14 : 25      (4) 12 : 23

(SSC CGL Tier-I Exam, 16.08.2015  
(IInd Sitting) TF No. 2176783)

## RATIO AND PROPORTION

- 66.** Three utensils contain equal quantity of mixtures of milk and water in the ratio 6 : 1, 5 : 2 and 3 : 1 respectively. If all the solutions are mixed together, the ratio of milk and water in the final mixture is  
 (1) 65 : 28      (2) 65 : 19  
 (3) 19 : 65      (4) 19 : 28  
 (SSC CGL Tier-I Re-Exam, 30.08.2015)
- 67.** 60 kg of an alloy A is mixed with 100 kg of alloy B. If alloy A has lead and tin in the ratio 3 : 2 and alloy B has tin and copper in the ratio 1 : 4, the amount of tin in the new alloy is  
 (1) 53 kg      (2) 44 kg  
 (3) 80 kg      (4) 24 kg  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 68.** Three glasses of equal volume contains acid mixed with water. The ratios of acid and water are 2 : 3, 3 : 4 and 4 : 5 respectively. Contents of these glasses are poured in a large vessel. The ratio of acid and water in the large vessel is  
 (1) 411 : 540      (2) 401 : 544  
 (3) 417 : 564      (4) 407 : 560  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 69.** Two blends of a commodity costing Rs. 35 and Rs. 40 per kg. respectively are mixed in the ratio 2 : 3 by weight. If one-fifth of the mixture is sold at Rs. 46 per kg and the remaining at the rate of Rs. 55 per kg. the profit percent is  
 (1) 50      (2) 30  
 (3) 40      (4) 20  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 70.** 20 litres of a mixture contains milk and water in the ratio 3 : 1. Then the amount of milk to be added to the mixture so as to have milk and water in ratio 4 : 1 is :  
 (1) 7 litres      (2) 4 litres  
 (3) 5 litres      (4) 6 litres  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 15.11.2015 (1st Sitting) TF No. 6636838)
- 71.** A mixture contains milk and water in the ratio 5 : 1. On adding 5 litres of water, the ratio of milk and water becomes 5 : 2. The quantity of milk in the mixture is :  
 (1) 25 litres      (2) 32.5 litres  
 (3) 16 litres      (4) 22.75 litres  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (1st Sitting) TF No. 1375232)
- 72.** A vessel contains 60 litres of milk. 12 litres of milk is taken out from it and replaced by water. Then again from mixture, 12 litres is again taken out and replaced by water. The ratio of milk and water in the resultant mixture is :  
 (1) 15:10      (2) 16:9  
 (3) 9:5      (4) 16:10  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (1st Sitting) TF No. 3441135)
- 73.** A mixture contains spirit and water in the ratio of 3 : 2. If it contains 3 litres more spirit than water, the quantity of spirit in the mixture is  
 (1) 12 litres      (2) 10 litres  
 (3) 9 litres      (4) 8 litres  
 (SSC CGL Tier-I (CBE) Exam.11.09.2016) (1st Sitting)
- 74.** 49 kg of blended tea contains Assam and Darjeeling tea in the ratio 5 : 2. Then the quantity of Darjeeling tea to be added to the mixture to make the ratio of Assam to Darjeeling tea 2 : 1 is  
 (1) 4.5 kg      (2) 3.5 kg  
 (3) 5 kg      (4) 6 kg  
 (SSC CGL Tier-II Online Exam.01.12.2016)
- 75.** Three containers have their volumes in the ratio 3 : 4 : 5. They are full of mixtures of milk and water. The mixtures contain milk and water in the ratio of (4 : 1), (3 : 1) and (5 : 2) respectively. The contents of all these three containers are poured into a fourth container. The ratio of milk and water in the fourth container is  
 (1) 4 : 1      (2) 151 : 48  
 (3) 157 : 53      (4) 5 : 2  
 (SSC CGL Tier -II Online Exam.01.12.2016)
- 76.** In what proportion must a grocer mix sugar at Rs.12 a kg and Rs.7 a kg so as to make a mixture worth Rs. 8 a kg?  
 (1) 7 : 12      (2) 1 : 4  
 (3) 2 : 3      (4) 12 : 7  
 (SSC CGL Tier -II Online Exam.01.12.2016)
- 77.** A canister holds 36 litres of mixture of milk and water in the ratio 3 : 1. 15 litres of milk is added to the canister. The new ratio of the mixture is :  
 (1) 12 : 5      (2) 14 : 3  
 (3) 7 : 4      (4) 9 : 4  
 (SSC CPO Exam. 06.06.2016) (1st Sitting)
- 78.** In a mixture of 25 litres, the ratio of milk to water is 4 : 1. Another 3 litres of water is added to the mixture. The ratio of milk to water in the new mixture is  
 (1) 5 : 1      (2) 5 : 2  
 (3) 5 : 3      (4) 5 : 4  
 (SSC CGL Tier-I (CBE) Exam. 09.09.2016) (1st Sitting)
- 79.** Three containers whose volumes are in the ratio of 2 : 3 : 4 are full of mixture of spirit and water. In the 1st container, the ratio of spirit and water is 4 : 1, in the 2nd container the ratio is 11 : 4 and in the 3rd container ratio is 7 : 3. All the three mixtures are mixed in a big container. The ratio of spirit and water in the resultant mixture is :  
 (1) 4 : 9      (2) 11 : 4  
 (3) 5 : 10      (4) 9 : 5  
 (SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016) (1st Sitting)
- 80.** Two bottles contain acid and water in the ratio 2 : 3 and 1 : 2 respectively. These are mixed in the ratio 1 : 3. What is the ratio of acid and water in the new mixture ?  
 (1) 7:13      (2) 11:57  
 (3) 23:37      (4) 1:3  
 (SSC CGL Tier-II (CBE) Exam. 30.11.2016)
- 81.** In two types of brass, the ratios of Copper to Zinc are 8:3 and 15:7 respectively. If the two types of brass be melted and mixed in the ratio 5:2 a new type of brass is obtained. The ratio of Copper to Zinc in this new type of brass is  
 (1) 3:2      (2) 2:3  
 (3) 3:4      (4) 5:2  
 (SSC CGL Tier-II (CBE) Exam. 30.11.2016)
- 82.** There are three bottles of mixture of syrup and water of ratios 2 : 3, 3 : 4 and 7 : 5. 10 litres of the first and 21 litres of the second bottles are taken. How much quantity from third bottle is to be taken so that final mixture from three bottles will be of ratios 1 : 1.  
 (1) 25 litres      (2) 20 litres  
 (3) 35 litres      (4) 30 litres  
 (SSC CGL Tier-II (CBE) Exam. 12.01.2017)



**TYPE-IX**

1. The income of A, B and C are in the ratio 3 : 7 : 4 and their expenses in the ratio 4 : 3 : 5. If A saves ₹ 300 out of an income of ₹ 2,400, the savings of B and C are :  
 (1) ₹ 4025 and ₹ 575  
 (2) ₹ 1575 and ₹ 2.625  
 (3) ₹ 2750 and ₹ 1.525  
 (4) ₹ 3725 and ₹ 1.525  
 (SSC CGL Prelim Exam. 04.07.1999 (First Sitting))
2. Between two consecutive years my income are in the ratio of 2 : 3 and expenses in the ratio 5 : 9. If my income in the second year is ₹ 45000 and my expenses in the first year is ₹ 25000 my total savings for the two years is :  
 (1) Nil (2) ₹ 5000  
 (3) ₹ 10000 (4) ₹ 5000  
 (SSC CGL Prelim Exam. 04.07.1999 (Second Sitting))
3. A and B have monthly incomes in the ratio 5 : 6 and monthly expenditures in the ratio 3 : 4. If they save ₹ 1800 and ₹ 1600 respectively, find the monthly income of B :  
 (1) ₹ 3400 (2) ₹ 2700  
 (3) ₹ 1720 (4) ₹ 7200  
 (SSC CGL Prelim Exam. 24.02.2002 (First Sitting))
4. The ratio of income of two persons is 5 : 3 and that of their expenditures is 9 : 5. Find the income of each person, if they save ₹ 1,300 and ₹ 900 respectively.  
 (1) ₹ 4,000, ₹ 2,400  
 (2) ₹ 3,000, ₹ 1,800  
 (3) ₹ 5,000, ₹ 3,000  
 (4) ₹ 4,500 ₹ 2,700  
 (SSC CGL Prelim Exam. 24.02.2002 (Second Sitting))
5. The annual income of A and B are in the ratio 4 : 3 and the ratio of their expenditures is 3 : 2. If each of them saves ₹ 600 in the year, the annual income of A is  
 (1) ₹ 4800 (2) ₹ 1800  
 (3) ₹ 1200 (4) ₹ 2400  
 (SSC CGL Prelim Exam. 24.02.2002 (Middle Zone) & SSC CPO SI 03.09.2006, 26.05.2005 & SSC MT (Non- Technical) Exam. 27.02.2011)
6. The income of A, B and C are in the ratio 7 : 9 : 12 and their spendings are in the ratio 8 : 9 : 15. If A saves  $\frac{1}{4}$ th of his income, then the savings of A, B and C are in the ratio of :  
 (1) 56 : 99 : 69 (2) 69 : 56 : 99  
 (3) 99 : 56 : 69 (4) 99 : 69 : 56  
 (SSC CGL Prelim Exam. 11.05.2003 (1st Sitting) & SSC CGL Tier-I Exam. 26.06.2011 (IInd sitting))
7. The ratio of income of P and Q is 3 : 4 and the ratio of their expenditures is 2 : 3. If both of them save ₹ 6000, the income of P is  
 (1) ₹ 20000 (2) ₹ 12000  
 (3) ₹ 18000 (4) ₹ 24000  
 (SSC CGL Prelim Exam. 11.05.2003 (Second Sitting))
8. A man spends a part of his monthly income and saves a part of it. The ratio of his expenditure to his saving is 26 : 3. If his monthly income is ₹ 7250, what is the amount of his monthly savings ?  
 (1) ₹ 350 (2) ₹ 290  
 (3) ₹ 750 (4) ₹ 780  
 (SSC CGL Prelim Exam. 08.02.2004 (Second Sitting))
9. The monthly salaries of A, B and C are in the ratio 2 : 3 : 5. If C's monthly salary is ₹ 12,000 more than that of A, then B's annual salary is  
 (1) ₹ 1,20,000 (2) ₹ 1,44,000  
 (3) ₹ 1,80,000 (4) ₹ 2,40,000  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (IInd Sitting))
10. The ratio of income of two persons is 5 : 3 and that of their expenditures is 9 : 5. If they save ₹ 2600 and ₹ 1800 respectively, their incomes are :  
 (1) ₹ 8000; ₹ 4800  
 (2) ₹ 6000; ₹ 3600  
 (3) ₹ 10000; ₹ 6000  
 (4) ₹ 9000; ₹ 5400  
 (SSC CGL Prelim Exam. 13.11.2005 (First Sitting))
11. The monthly income of two persons are in the ratio 2 : 3 and their monthly expenses are in the ratio 5 : 9. If each of them saves ₹ 600 per month, then their monthly incomes are  
 (1) ₹ 1,500; ₹ 2,250  
 (2) ₹ 1,200; ₹ 1,800  
 (3) ₹ 1,600; ₹ 2,400  
 (4) ₹ 1,400; ₹ 2,100  
 (SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))
12. A person bought some rice and wheat for ₹ 380. The ratio of weight of rice and wheat is 4 : 3 and the price of equal amount of rice and wheat is in the ratio 5 : 6. The rice was bought of worth  
 (1) ₹ 380 (2) ₹ 300  
 (3) ₹ 200 (4) ₹ 180  
 (SSC Multi-Tasking Staff Exam. 17.03.2013, 1st Sitting)
13. The ratio of incomes of A and B is 5 : 6. If A gets ₹ 1,100 less than B, their total income (in rupees) is  
 (1) 9,900 (2) 12,100  
 (3) 14,400 (4) 10,000  
 (SSC CGL Prelim Exam. 04.02.2007 (First Sitting))
14. The income of A and B are in the ratio 5 : 3. The expenses of A, B and C are in the ratio 8 : 5 : 2. If C spends ₹ 2000 and B saves ₹ 700, then A saves  
 (1) ₹ 1500 (2) ₹ 1000  
 (3) ₹ 500 (4) ₹ 250  
 (SSC CGL Prelim Exam. 04.02.2007 (Second Sitting))
15. The ratio of income and expenditure of a person is 11 : 10. If he saves ₹ 9,000 per annum, his monthly income is  
 (1) ₹ 8,000 (2) ₹ 8,800  
 (3) ₹ 8,500 (4) ₹ 8,250  
 (SSC CGL Tier-I Exam. 16.05.2010 (Second Sitting))
16. The ratio of the income to the expenditure of a family is 10 : 7. If the family's expenses are ₹ 10,500, then savings of the family is  
 (1) ₹ 4,500 (2) ₹ 10,000  
 (3) ₹ 4,000 (4) ₹ 5,000  
 (SSC CGL Tier-1 Exam. 19.06.2011 (First Sitting))
17. Monthly income of A and B are in the ratio of 4 : 3 and their expenses bear the ratio 3 : 2. Each of them saves ₹ 6,000 at the end of the month, then the monthly income of A is  
 (1) ₹ 12,000 (2) ₹ 24,000  
 (3) ₹ 30,000 (4) ₹ 60,000  
 (SSC CGL Tier-1 Exam. 19.06.2011 (Second Sitting))

- 18.** The ratio of weekly income of A and B is 9 : 7 and the ratio of their expenditures is 4 : 3. If each saves ₹100 per week, then the sum of their weekly income is  
 (1) ₹ 3,600 (2) ₹ 3,200  
 (3) ₹ 4,800 (4) ₹ 5,600  
 (SSC CGL Tier-1 Exam. 26.06.2011 (First Sitting))
- 19.** The ratio of the incomes of A and B as well as of B and C is 3 : 2. If one third of A's income exceeds one fourth of C's income by ₹1000, what is B's income in ₹ ?  
 (1) 3000 (2) 2500  
 (3) 3500 (4) 4000  
 (SSC CHSL DEO & LDC Exam. 28.10.2012, 1st Sitting)
- 20.** The income of A and B are in the ratio 2 : 3 and their expenditures are in the ratio 1 : 2. If each saves ₹24,000, find A's income.  
 (1) ₹ 24,000 (2) ₹ 72,000  
 (3) ₹ 19,200 (4) ₹ 48,000  
 (SSC CPO (SI, ASI & Intelligence Officer) Exam. 28.08.2011 (Paper-I))
- 21.** Incomes of A and B are in the ratio 4 : 3 and their annual expenses in the ratio 3 : 2. If each saves ₹ 60,000 at the end of the year, the annual income of A is  
 (1) ₹ 1,20,000 (2) ₹ 1,50,000  
 (3) ₹ 2,40,000 (4) ₹ 3,60,000  
 (SSC Data Entry Operator Exam. 02.08.2009)
- 22.** Ratio between the monthly incomes of A and B is 9 : 8 and the ratio between their expenditures is 8 : 7. If they save ₹ 500 each, find A's monthly income.  
 (1) ₹ 3,500 (2) ₹ 4,000  
 (3) ₹ 4,500 (4) ₹ 5,000  
 (SSC Multi-Tasking (Non-Technical) Staff Exam. 20.02.2011)
- 23.** If the annual income of A, B and C are in the ratio 1 : 3 : 7 and the total annual income of A and C is ₹ 8,00,000, then the monthly salary of B (in ₹) is  
 (1) 20,000 (2) 25,000  
 (3) 30,000 (4) 15,000  
 (SSC Constable (GD) & Rifleman (GD) Exam. 22.04.2012 (IInd Sitting))
- 24.** Annual incomes of Amit and Veeri are in the ratio 3:2, while the ratio of their expenditure is 5 : 3. If at the end of the year each saves ₹ 1,000, the annual income of Amit is  
 (1) ₹ 9,000 (2) ₹ 8,000  
 (3) ₹ 7,000 (4) ₹ 6,000  
 (SSC Graduate Level Tier-II Exam.16.09.2012)

- 25.** The ratio of monthly incomes of A, B is 6 : 5 and their monthly expenditures are in the ratio 4 : 3. If each of them saves ₹ 400 per month, find the sum of their monthly incomes.  
 (1) 2300 (2) 2400  
 (3) 2200 (4) 2500  
 (SSC Graduate Level Tier-I Exam. 21.04.2013)
- 26.** Incomes of  $x$  and  $y$  are in the ratio 4:3. Their expenditures are in the ratio 12:7. Both save Rs. 3200 at the end of the month, then the income of  $x$  is  
 (1) ₹ 8000 (2) ₹ 6000  
 (3) ₹ 2000 (4) ₹ 4000  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 (1st Sitting) TF No. 8037731)
- 27.** The incomes of A and B are in the ratio 3 : 2 and their expenditures are in the ratio 5 : 3. If each saves Rs. 1000, then A's income is  
 (1) Rs. 6000 (2) Rs. 4000  
 (3) Rs. 2000 (4) Rs. 5000  
 (SSC CGL Tier-I Re-Exam, 30.08.2015)
- 28.** A and B have their monthly incomes in the ratio 8 : 5, while their monthly expenditures are in the ratio 5 : 3. If they have saved Rs. 12,000 and Rs. 10,000 monthly respectively, then the difference in their monthly incomes is  
 (1) Rs. 52,000 (2) Rs. 42,000  
 (3) Rs. 44,000 (4) Rs. 46,000  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 29.** A man spends a part of his monthly income and saves the rest. The ratio of his expenditure to the savings is 61 : 6. If his monthly income is Rs. 8710, the amount of his monthly savings is  
 (1) Rs. 870 (2) Rs. 690  
 (3) Rs. 980 (4) Rs. 780  
 (SSC CGL Tier-I (CBE) Exam. 28.08.2016 (IInd Sitting))
- 30.** A's income is Rs. 140 more than B's income and C's income is Rs. 80 more than D's. If the ratio of A's and C's incomes is 2 : 3 and the ratio of B's and D's incomes is 1 : 2, then the incomes of A, B, C and D are respectively  
 (1) Rs. 260, Rs. 120, Rs. 320 and Rs. 240  
 (2) Rs. 300, Rs. 160, Rs. 600 and Rs. 520  
 (3) Rs. 400, Rs. 260, Rs. 600 and Rs. 520  
 (4) Rs. 320, Rs. 180, Rs. 480 and Rs. 360  
 (SSC CGL Tier-II (CBE) Exam. 12.01.2017)

**TYPE-X**

- 1.** ₹ 180 contained in a box consists of one rupee, 50 paise and 25 paise coins in the ratio 2 : 3 : 4. What is the number of 50 paise coins?  
 (1) 60 (2) 120  
 (3) 150 (4) 180  
 (SSC CGL Prelim Exam. 04.07.1999 (Second Sitting))
- 2.** If 378 coins consist of rupees, 50 paise and 25 paise coins, whose values are in the ratio of 13 : 11 : 7, the number of 50 paise coins will be :  
 (1) 132 (2) 128  
 (3) 136 (4) 133  
 (SSC CGL Prelim Exam. 11.05.2003 (First Sitting))
- 3.** A bag contains ₹90 in coins of denominations of 50 paise, 25 paise and 10 paise. If coins of 50 paise, 25 paise and 10 paise are in the ratio 2 : 3 : 5, then the number of 25 paise coins in the bag is  
 (1) 80 (2) 120  
 (3) 100 (4) 135  
 (SSC CGL Prelim Exam. 11.05.2003 (Second Sitting))
- 4.** There are ₹ 225 consisting of one rupee, 50 paise and 25 paise coins. The ratio of their numbers in that order is 8 : 5 : 3. The number of one-rupee coins is :  
 (1) 80 (2) 112  
 (3) 160 (4) 172  
 (SSC CGL Prelim Exam. 08.02.2004 (Second Sitting))
- 5.** A box contains 1-rupee, 50-paise and 25-paise coins in the ratio 8 : 5 : 3. If the total amount of money in the box is ₹ 112.50, the number of 50-paise coins is  
 (1) 80 (2) 50  
 (3) 30 (4) 42  
 (SSC CGL Prelim Exam. 04.02.2007 (First Sitting))
- 6.** In a bag, there are three types of coins — 1-rupee, 50 paise and 25-paise in the ratio of 3 : 8 : 20. Their total value is ₹372. The total number of coins is  
 (1) 1200 (2) 961  
 (3) 744 (4) 612  
 (SSC Section Officer (Commercial Audit) Exam. 30.09.2007 (Second Sitting))

7. A box has 210 coins of denominations one-rupee and fifty paise only. The ratio of their respective values is 13 : 11. The number of one-rupee coins is  
 (1) 65 (2) 66  
 (3) 77 (4) 78  
 (SSC CGL Prelim Exam. 27.07.2008 (First Sitting))
8. A boy has a few coins of denominations 50 paise, 25 paise and 10 paise in the ratio 1 : 2 : 3. If the total amount of the coins is ₹ 6.50, the number of 10 paise coins is  
 (1) 5 (2) 10  
 (3) 15 (4) 20  
 (SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))
9. A man has in all ₹ 640 in the denominations of one-rupee, five-rupee and ten-rupee notes. The number of each type of notes are equal. What is the total number of notes he has ?  
 (1) 150 (2) 120  
 (3) 100 (4) 90  
 (SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting))
10. A bag contains three types of coins-rupee-coins, 50p-coins and 25 p-coins totalling 175 coins. If the total value of the coins of each kind be the same, the total amount in the bag is  
 (1) ₹ 75 (2) ₹ 175  
 (3) ₹ 300 (4) ₹ 126  
 (SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting))
11. There are 480 coins in half rupees, quarter rupees and 10 paise coins and their values are proportional to 5 : 3 : 1. The number of coins in each case are  
 (1) 100, 200, 180  
 (2) 50, 30, 400  
 (3) 150, 180, 150  
 (4) 300, 90, 90  
 (SSC Multi-Tasking Staff Exam. 17.03.2013, Ist Sitting)

12. A box contains 420 coins in rupee, 50 paise and 20 paise coins. The ratio of their rupee values being 13 : 11 : 7. The number of 50 paise coins is  
 (1) 42 (2) 78  
 (3) 66 (4) 132  
 (SSC Multi-Tasking Staff Exam. 24.03.2013, Ist Sitting)
13. A box contains ₹ 56 in the form of coins of one rupee, 50 paise and 25 paise. The number of 50 paise coins is double the number of 25 paise coins and four times the number of one rupee coins. How many 50 paise coins are there in the box?  
 (1) 52 (2) 64  
 (3) 32 (4) 16  
 (SSC FCI Assistant Grade-III Main Exam. 07.04.2013)
14. The salaries of A, B and C are in the ratio 1 : 3 : 4. If the salaries are increased by 5%, 10% and 15% respectively, then the increased salaries will be in the ratio  
 (1) 20 : 66 : 95 (2) 21 : 66 : 95  
 (3) 21 : 66 : 92 (4) 19 : 66 : 92  
 (SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))
15. Three persons A, B, C whose salaries together amount to ₹ 72000 spend 80, 85 and 75 percent of their salaries respectively. If their savings are in the ratio 8 : 9 : 20, then A's salary is  
 (1) ₹ 20,000 (2) ₹ 16,000  
 (3) ₹ 22,000 (4) ₹ 18,000  
 (SSC CHSL DEO & LDC Exam. 04.12.2011 (Ist Sitting (East Zone)))
16. A box contains 280 coins of one-rupee, 50-paise and 25-paise. The values of each kind of the coins are in the ratio of 8 : 4 : 3. Then the number of 50-paise coins is  
 (1) 70 (2) 60  
 (3) 80 (4) 90  
 (SSC CHSL DEO Exam. 16.11.2014 (Ist Sitting))

**TYPE-XI**

1. By mistake, instead of dividing ₹ 117 among A, B and C in the ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$  it was divided in the ratio of 2 : 3 : 4. Who gains the most and by how much?  
 (1) A, ₹ 28 (2) B, ₹ 3  
 (3) C, ₹ 20 (4) C, ₹ 25  
 (SSC CGL Prelim Exam. 04.07.1999 (First Sitting))
2. If a sum of money is to be divided among A, B, C such that A's share is equal to twice B's share and B's share is 4 times C's share, then their shares are in the ratio:  
 (1) 1 : 2 : 4 (2) 1 : 4 : 1  
 (3) 8 : 4 : 1 (4) 2 : 4 : 1  
 (SSC CGL Prelim Exam. 27.02.2000 (Second Sitting))
3. Divide ₹ 7,500 among A, B and C such that A's share to B's share is in ratio 5 : 2 and B's share to C's share is in the ratio 7 : 13. How much will B receive?  
 (1) ₹ 1,400 (2) ₹ 3,500  
 (3) ₹ 2,600 (4) ₹ 7,000  
 (SSC CGL Prelim Exam. 24.02.2002 (Second Sitting))
4. A sum of ₹ 1240 is distributed among A, B and C such that the ratio of amount received by A and B is 6 : 5 and that of B and C is 10 : 9 respectively. Find the share of C.  
 (1) ₹ 480 (2) ₹ 360  
 (3) ₹ 400 (4) ₹ 630  
 (SSC CGL Prelim Exam. 24.02.2002 (Middle Zone))
5. ₹ 3400 is divided among A, B, C, D in such a way that the share of A and B, B and C, C and D may be as 2 : 3, 4 : 3 and 2 : 3 respectively. The sum of shares of B and D is  
 (1) ₹ 2040 (2) ₹ 1680  
 (3) ₹ 2000 (4) ₹ 1720  
 (SSC CGL Prelim Exam. 11.05.2003 (Second Sitting))
6. ₹ 750 are divided among A, B and C in such a manner that A : B is 5 : 2 and B : C is 7 : 13. What is A's share ?  
 (1) ₹ 350 (2) ₹ 260  
 (3) ₹ 140 (4) ₹ 250  
 (SSC CGL Prelim Exam. 08.02.2004 (First Sitting))

**RATIO AND PROPORTION**

7. ₹ 68000 is divided among A, B and C in the ratio of  $\frac{1}{2} : \frac{1}{3} : \frac{5}{4}$

4 16

The difference of the greatest and the smallest part is :

- (1) ₹ 6000      (2) ₹ 14440  
(3) ₹ 9200      (4) ₹ 16000

(SSC CGL Prelim Exam. 13.11.2005 (First Sitting))

8. ₹ 6,400 are divided among three workers in the ratio

$\frac{3}{5} : 2 : \frac{5}{3}$ . The share (in rupees)

of the second worker is

- (1) 3,200      (2) 3,840  
(3) 2,560      (4) 3,000

(SSC CGL Prelim Exam. 13.11.2005 (Second Sitting))

9. Divide ₹ 1250 among A, B, C, so that A gets  $\frac{2}{9}$  of B's share and

C gets  $\frac{3}{4}$  of A's share.

- (1) ₹ 200, ₹ 800, ₹ 250  
(2) ₹ 200, ₹ 900, ₹ 150  
(3) ₹ 150, ₹ 800, ₹ 300  
(4) ₹ 200, ₹ 900, ₹ 75

(SSC CGL Prelim Exam. 04.07.1999 (Second Sitting))

10. A sum of ₹ 9000 is to be distributed among A, B and C in the ratio 4 : 5 : 6. What will be the difference between A's and C's shares?

- (1) ₹ 600      (2) ₹ 1000  
(3) ₹ 900      (4) ₹ 1200

(SSC CGL Prelim Exam. 24.02.2002 (First Sitting))

11. A sum of ₹ 370 is to be divided among A, B and C such that

$$\frac{A's\ Share}{B's\ Share} = \frac{B's\ Share}{C's\ Share}$$

=  $\frac{3}{4}$ , A's share (in rupees) is

- (1) 240      (2) 120  
(3) 100      (4) 90

(SSC Section Officer (Commercial Audit) Exam. 16.11.2003)

12. An amount of money is to be distributed among P, Q and R in the ratio of 2 : 7 : 9. The total of P's and Q's share is equal to R's share. What is the difference between the shares of P and Q?

- (1) ₹ 5000      (2) ₹ 7500  
(3) ₹ 9000

(4) Information inadequate

13. ₹ 2010 are to be divided among A, B and C in such a way that if A gets ₹ 5 then B must get Rs.

12 and if B gets ₹ 4 then C must get ₹ 5.50. The share of C will exceed that of B by

- (1) ₹ 620      (2) ₹ 430  
(3) ₹ 360      (4) ₹ 270

(SSC CPO S.I. Exam. 16.12.2007)

14. ₹ 600 are divided among A, B and C so that ₹ 40 more than  $\frac{2}{5}$

of A's share, ₹ 20 more than  $\frac{2}{7}$  of B's share and ₹ 10 more than  $\frac{9}{17}$

of C's share are all equal. A's share is

- (1) ₹ 180      (2) ₹ 160  
(3) ₹ 150      (4) ₹ 140

(SSC SAS Exam. 26.06.2010 (Paper-1))

15. A sum of ₹ 86,700 is to be divided among A, B and C in such a manner that for every rupee that A gets, B gets 90 paise and for every rupee that B gets, C gets 100 paise. B's share will be

- (1) ₹ 26,010      (2) ₹ 27,000  
(3) ₹ 28,000      (4) ₹ 28,090

(SSC Data Entry Operator Exam. 31.08.2008)

16. A sum of ₹ 7,000 is divided among A, B, C in such a way that the shares of A and B are in the ratio 2 : 3 and those of B and C are in the ratio 4 : 5. The share of B is

- (1) ₹ 2,400      (2) ₹ 3,000  
(3) ₹ 1,600      (4) ₹ 2,000

(SSC CHSL DEO & LDC Exam. 21.10.2012 (1st Sitting))

₹ (SSC CGL Prelim Exam. 08.02.2004 (Second Sitting))

₹      ₹  
₹      ₹

19. ₹ 1740 is divided among A, B, and C such that 0.5 of A = ₹ 0.6 of B = ₹ 0.75 of C. Then C will

get

- (1) ₹ 580      (2) ₹ 696  
(3) ₹ 348      (4) ₹ 464

(SSC Multi-Tasking Staff Exam. 17.03.2013, 1st Sitting)

20. A certain amount of money is divided among x, y and z. If x receives 25% more than y and y receives 25% less than z, then x : y : z is equal to

- (1) 14 : 12 : 13  
(2) 15 : 12 : 16  
(3) 10 : 9 : 12  
(4) 12 : 10 : 11

(SSC Multi-Tasking Staff Exam. 17.03.2013, IInd Sitting)

21. A sum of ₹ 53 is divided among A, B and C in such a way that A gets ₹ 7 more than what B gets and B gets ₹ 8 more than what C

gets. The ratio of their share is  
(1) 16 : 9 : 18      (2) 25 : 18 : 10  
(3) 18 : 25 : 10      (4) 15 : 8 : 30

(SSC Multi-Tasking Staff Exam. 17.03.2013, Kolkata Region)

22. ₹ 700 is divided among A, B, C

in such a way that the ratio of the amount of A and B is 2 : 3 and that of B and C is 4 : 5. Find the amount (in ₹) each received, in the order A, B, C.

- (1) 150, 250, 300  
(2) 160, 240, 300  
(3) 150, 250, 290  
(4) 150, 240, 310

(SSC Graduate Level Tier-I Exam. 21.04.2013)

23. Divide ₹ 2,600 among A, B, C in the ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$ . Find the

17. 180 are to be divided among 66 persons (men and women). The ratio of the total amount of money received by men and women is 5 : 4. But the ratio of the money received by each man and woman is 3 : 2. The number of men is  
(1) 20      (2) 24  
(3) 30      (4) 36

18. ₹ 738 is divided among A, B, C so that their shares are in the ratio of 2 : 3 : 4. B's share is  
(1) 328      (2) 246  
(3) 264      (4) 164

(SSC Multi-Tasking Staff Exam.)

share of each.

**RATIO AND PROPORTION**

- (1) 1,200, 600, 800
- (2) 1,200, 800, 600
- (3) 600, 800, 1,200
- (4) 800, 600, 1,200

₹  
₹  
₹  
₹  
₹  
₹  
₹

(SSC Graduate Level  
Tier-I Exam. 19.05.2013 Ist  
Sitting)

24. A sum of ₹ 300 is divided among P, Q and R in such a way that Q gets ₹ 30 more than P and R gets ₹ 60 more than Q. The ratio of their share is

- (1) 5 : 3 : 2      (2) 2 : 3 : 5
- (3) 3 : 2 : 5      (4) 2 : 5 : 3

(SSC Graduate Level  
Tier-I Exam. 19.05.2013 Ist  
Sitting)

## RATIO AND PROPORTION

25. ₹ 900 is divided among A, B, C; the division is such that  $\frac{1}{2}$  of A's money =  $\frac{1}{3}$  of B's money =  $\frac{1}{4}$  of C's money. Find the amount (in ₹) received by A, B, C.  
 (1) 300, 400, 200  
 (2) 350, 450, 100  
 (3) 200, 300, 400  
 (4) 400, 150, 350  
 (SSC Graduate Level Tier-II Exam. 29.09.2013)
26. If ₹ 126.50 is divided among A, B and C in the ratio of 2 : 5 : 4, the share of B exceeds that of A by  
 (1) ₹ 36.50 (2) ₹ 35.50  
 (3) ₹ 34.50 (4) ₹ 33.50  
 (SSC Graduate Level Tier-II Exam. 29.09.2013)
27. A sum of ₹ 76 is divided among A, B and C in such a way that A gets ₹ 7 more than that what B gets and B gets ₹ 6 more than what C gets. The ratio of their shares is  
 (1) 19 : 24 : 33 (2) 32 : 25 : 19  
 (3) 32 : 24 : 20 (4) 19 : 25 : 33  
 (SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)
28. ₹ 3,000 is divided between A, B and C, so that A receives  $\frac{1}{3}$  as much as B and C together receive and B receives  $\frac{2}{3}$  as much as A and C together receive. Then the share of C is  
 (1) ₹ 600 (2) ₹ 525  
 (3) ₹ 1,625 (4) ₹ 1,050  
 (SSC CGL Tier-I Re-Exam. (2013) 20.07.2014 (IInd Sitting))
29. ₹ 555 was to be divided among A, B and C in the ratio of  $\frac{1}{4} : \frac{1}{5} : \frac{1}{6}$ . But by mistake it was divided in the ratio of 4 : 5 : 6. The amount in excess received by C was  
 (1) ₹ 72 (2) ₹ 75  
 (3) ₹ 22 (4) ₹ 52  
 (SSC CGL Tier-I Exam. 26.10.2014)
30. A man divides his property so that his son's share to his wife's and wife's share to his daughter's are both as in the ratio 3 : 1. If the daughter gets ₹ 10,000 less than son, the value (in rupees) of the whole property is  
 (1) ₹ 16,250 (2) ₹ 16,000  
 (3) ₹ 18,250 (4) ₹ 17,000  
 (SSC CGL Tier-II Exam. 21.09.2014)
31. A sum of ₹ 730 was divided among A, B and C in such a way that if A gets ₹ 3, then B gets ₹ 4 and if B gets ₹ 3.50 then C gets ₹ 3. The share of B exceeds that of C by  
 (1) ₹ 30 (2) ₹ 40  
 (3) ₹ 70 (4) ₹ 210  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014 TF No. 999 KP0)
32. A sum of money is divided among A, B, C and D in the proportion of 7 : 6 : 3 : 5. If B gets ₹ 270 more than C, then share of D is  
 (1) ₹ 250 (2) ₹ 350  
 (3) ₹ 450 (4) ₹ 455  
 (SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014, IInd Sitting TF No. 545 QP 6)
33. In a partnership business, B's capital was half of A's. If after 8 months, B withdrew half of his capital and after 2 months more A withdrew  $\frac{1}{4}$  th of his capital, then the profit ratio of A and B will be  
 (1) 5 : 2 (2) 10 : 23  
 (3) 2 : 5 (4) 23 : 10  
 (SSC CGL Tier-II Exam. 12.04.2015 TF No. 567 TL 9)
34. A and B invest in the ratio 3 : 5. After 6 months, C joins the business investing an amount equal to B's. At the end of the year what will be the ratio of their profits?  
 (1) 6 : 10 : 5 (2) 3 : 5 : 2  
 (3) 8 : 10 : 5 (4) 3 : 5 : 5  
 (SSC CGL Tier-II Exam. 12.04.2015 TF No. 567 TL 9)
35. A and B entered into a partnership investing Rs 16000 and Rs. 12000 respectively. After 3 months A withdrew Rs. 5000 while B invested Rs. 5000 more. After 3 more months C joins the business with a capital of Rs 21000. The share of B exceeds that of C, out of a total profit of Rs. 26400 after one year by  
 (1) Rs. 2400 (2) Rs. 1200  
 (3) Rs. 3600 (4) Rs. 4800  
 (SSC CGL Tier-I Exam, 09.08.2015 (IInd Sitting) TF No. 4239378)
36. In a business A and C invested amounts in the ratio 2 : 1, whereas A and B invested amounts in the ratio 3 : 2. If their annual profit be Rs. 157300, then B's share in the profit is  
 (1) Rs. 24200 (2) Rs. 48000  
 (3) Rs. 36300 (4) Rs. 48400  
 (SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 01.11.2015, IInd Sitting)
37. An amount of Rs. 380 is to be divided among 5 men, 8 boys and 4 women such that the ratio of amount received by the three is in the ratio of 8 : 4 : 7. What is the share of a woman?  
 (1) Rs. 35 (2) Rs. 36.5  
 (3) Rs. 40 (4) Rs. 32.8  
 (SSC CPO SI, ASI Online Exam. 05.06.2016) (IInd Sitting)
38. A certain sum of money was divided between A, B and C in the ratio 5 : 6 : 9. If A received Rs. 450, the sum divided was  
 (1) Rs. 2000 (2) Rs. 1800  
 (3) Rs. 2250 (4) Rs. 1000  
 (SSC CGL Tier-I (CBE) Exam. 09.09.2016) (1st Sitting)
39. Rs. 490 is divided among A, B and C such that A's share is half that of B's and thrice that of C's. What is C's share?  
 (1) Rs. 49 (2) Rs. 147  
 (3) Rs. 294 (4) Rs. 245  
 (SSC CGL Tier-I (CBE) Exam. 27.08.2016) (1st Sitting)
40. A profit of Rs. 960 is divided between A and B in the ratio  $\frac{1}{3} : \frac{1}{2}$ . The difference of their profits is :  
 (1) Rs. 120 (2) Rs. 160  
 (3) Rs. 180 (4) Rs. 240  
 (SSC CGL Tier-I (CBE) Exam. 29.08.2016) (IInd Sitting)
41. Three brothers divided Rs. 1620 among themselves in such a way that the share of second is equal  $\frac{5}{13}$  of the share of other two, combined. What is the share of the second one?  
 (1) Rs. 1170 (2) Rs. 450  
 (3) Rs. 540 (4) Rs. 500  
 (SSC CGL Tier-I (CBE) Exam. 31.08.2016) (IInd Sitting)
42. If a certain amount is fully distributed among A, B and C in such a way that A receives  $\frac{1}{2}$  of the amount, B receives  $\frac{1}{3}$  of the amount and C receives Rs. 1200, then how much money would A receive?  
 (1) Rs. 4000 (2) Rs. 1600  
 (3) Rs. 3600 (4) Rs. 1800  
 (SSC CGL Tier-I (CBE) Exam. 01.09.2016) (IInd Sitting)

**RATIO AND PROPORTION**

43. A, B and C together start a business. Three times the investment of A equals four times the investment of B and the capital of B is twice that of C. The ratio of share of each in the profit is

- (1) 8 : 3 : 6      (2) 3 : 8 : 3  
(3) 3 : 6 : 8      (4) 8 : 6 : 3

(SSC CGL Tier-II (CBE)  
Exam. 30.11.2016)

44. A sum of Rs. 770 has been divided among A, B and C in such

a way that A receives  $\frac{2}{9}$ th of what B and C together receive.

- Then A's share is  
(1) Rs. 140      (2) Rs. 154  
(3) Rs. 165      (4) Rs. 170

(SSC CGL Tier-I (CBE)  
Exam. 28.08.2016 (1st Sitting))

45. A sum of Rs. 730 was divided among A, B and C in such a way that if A gets Rs. 3 then B gets Rs. 4 and if B gets Rs. 3.50 then C gets Rs. 3. The share of B exceeds that of C by

- (1) Rs. 30      (2) Rs. 40  
(3) Rs. 70      (4) Rs. 210

(SSC CGL Tier-I (CBE)  
Exam. 09.09.2016 (3rd Sitting))

46. A and B start an enterprise together, with A as active partner. A invests Rs. 4000 and Rs. 2000 more after 8 months. B invests Rs. 5000 and withdraws Rs. 2000 after 9 months. Being the active partner, A takes Rs. 100 per month as allowance, from the profit. What is the share of B if the profit for the year is Rs. 6700?

- (1) Rs. 3350      (2) Rs. 3250  
(3) Rs. 2700      (4) Rs. 2800

(SSC CGL Tier-II (CBE)  
Exam. 12.01.2017)

47. A sum of Rs. 15525 is divided among Sunil, Anil and Jamil such that if Rs. 22, Rs. 35 and Rs. 48 be diminished from their shares respectively, their remaining sums shall be in the ratio 7 : 10 : 13. What would have been the ratio of their sums if Rs. 16, Rs. 77 and Rs. 37 respectively were added to their original shares?

- (1) 9 : 13 : 17      (2) 18 : 26 : 35  
(3) 36 : 52 : 67      (4) None of these

(SSC CGL Tier-II (CBE)  
Exam. 12.01.2017)

48. ₹980 is divided among A, B and C so that half of A's part, one-third of B's part and one-sixth of C's part are equal. Then B's part is

- (1) ₹ 540      (2) ₹ 660  
(3) ₹ 1,080      (4) ₹ 360

(SSC Multi-Tasking Staff  
Exam. 30.04.2017)

49. A, B and C invested ₹ 13,000, ₹ 17,000 and ₹ 5,000 respectively in a business. At the end of the year, they earn a profit of ₹ 1,400. B's share of profit is

- (1) ₹ 680      (2) ₹ 410  
(3) ₹ 630      (4) ₹ 720

(SSC Multi-Tasking Staff  
Exam. 30.04.2017)

50. ₹ 600 is divided among A, B and

C. ₹ 40 more than  $\frac{2}{5}$ th of A's

share, ₹ 20 more than  $\frac{2}{7}$ th of

B's share and ₹ 10 more than

$\frac{9}{17}$ th of C's share are all equal.

Then A's share is

- (1) ₹ 150      (2) ₹ 170  
(3) ₹ 280      (4) ₹ 140

(SSC Multi-Tasking Staff  
Exam. 30.04.2017)

**TYPE-XII**

1. How many sides does a regular polygon have whose interior and exterior angles are in the ratio 2 : 1?

- (1) 3      (2) 5  
(3) 6      (4) 12

(SSC CGL Prelim Exam. 27.02.2000  
(First Sitting))

2. The smallest integer, which subtracted from both the terms of 6 : 7 gives a ratio less than 16 : 21, is :

- (1) 5      (2) 4  
(3) 3      (4) 2

(SSC CGL Prelim Exam. 27.02.2000  
(Second Sitting))

3. Two numbers are in the ratio 17 : 45. One-third of the smaller is

$\frac{1}{5}$  less than  $\frac{1}{5}$  of the bigger by 15. The smaller number is

- (1)  $25\frac{1}{2}$       (2)  $67\frac{1}{2}$   
(3)  $76\frac{1}{2}$       (4)  $86\frac{1}{2}$

(SSC CPO S.I. Exam. 12.01.2003)

4. Tea worth ₹ 126 per kg and ₹ 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth ₹ 153 per kg, the price of the third variety per kg will be

- (1) ₹ 175.5      (2) ₹ 180.0  
(3) ₹ 169.5      (4) ₹ 170.0

(SSC CHSL DEO & LDC Exam.  
21.10.2012 (1st Sitting))

5. Same quantity of rice is required for each member of a family of 15 members. On a particular day, due to the absence of some members of the family, the consumption of rice was reduced in the ratio 5 : 3. The number of members absent on that day was

- (1) 3      (2) 6  
(3) 8      (4) 9

(SSC CGL Prelim Exam. 13.11.2005  
(Second Sitting))

6. Instead of dividing ₹ 117 among P, Q, R in the ratio

$\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$ , by mistake it was

divided in the ratio 2 : 3 : 4. Who gained in the transaction?

- (1) Only P      (2) Only Q  
(3) Only R      (4) Both Q and R

(SSC CGL Prelim Exam. 13.11.2005  
(Second Sitting))

7. The ratio of the first and second class train fares between two stations is 3 : 1 and that of the numbers of passengers travelling between the two stations by first and second classes is 1 : 50. If on a particular day ₹ 1,325 are collected from passengers travelling between the two stations, then the amount collected from the second class passengers is

- (1) ₹ 1,250      (2) ₹ 1,000  
(3) ₹ 850      (4) ₹ 750

(SSC CGL Prelim Exam. 13.11.2005  
(Second Sitting))

8. In an innings of a cricket match, three players A, B and C scored a total of 361 runs. If the ratio of the number of runs scored by A to that scored by B and also number of runs scored by B to that scored by C be 3 : 2, the number of runs scored by A was

- (1) 171      (2) 181  
(3) 185      (4) 161

(SSC CGL Prelim Exam. 04.02.2007  
(First Sitting))

9. In an examination, the number of those who passed and the number of those who failed were in the ratio 25 : 4. If five more had appeared and the number of failures was 2 less than earlier, the ratio of passers to failures would have been 22 : 3. The total number who appeared at the examination is

- (1) 145      (2) 150  
(3) 155      (4) 180

(SSC CGL Prelim Exam. 04.02.2007  
(Second Sitting))

## RATIO AND PROPORTION

- 10.** In a cricket match the total number of runs scored by Sachin, Vinod and Sourav is 285. The ratio of the number of runs scored by Sachin and Sourav is 3 : 2 and that of the runs scored by Sourav and Vinod is also 3 : 2. The number of runs scored by Sachin in that match is  
 (1) 135 (2) 90  
 (3) 60 (4) 140  
 (SSC Section Officer (Commercial Audit) Exam. 30.09.2007 (Second Sitting))
- 11.** The total marks obtained by Arun in English and Mathematics are 170. If the difference between his marks in these two subjects is 10, then the ratio of his marks in these subjects is  
 (1) 7 : 8 (2) 8 : 7  
 (3) 9 : 8 (4) 9 : 7  
 (SSC CGL Prelim Exam. 27.07.2008 (Second Sitting))
- 12.** The weight of Mr. Gupta and Mrs. Gupta are in the ratio 7 : 8 and their total weight is 120 kg. After taking a dieting course Mr. Gupta reduces by 6 kg and the ratio between their weights changes to 5 : 6. So Mrs. Gupta has reduced by  
 (1) 2 kg (2) 4 kg  
 (3) 3 kg (4) 5 kg  
 (SSC CPO S.I. Exam. 06.09.2009)
- 13.** The ratio of the numbers of boys and girls in a school was 5 : 3. Some new boys and girls were admitted to the school, in the ratio 5 : 7. At this, the total number of students in the school became 1200, and the ratio of boys to girls changed to 7 : 5. The number of students in the school before new admissions was  
 (1) 700 (2) 720  
 (3) 900 (4) 960  
 (SSC SAS Exam. 26.06.2010 (Paper-1))
- 14.** The price of a refrigerator and a television set are in the ratio 5 : 3. If the refrigerator cost ₹ 5500 more than the television set, then the price of the refrigerator is:  
 (1) ₹ 27500 (2) ₹ 8250  
 (3) ₹ 13750 (4) ₹ 16500  
 (SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting))
- 15.** A man leaves ₹ 8,600 to be divided among 5 sons, 4 daughters and 2 nephews. If each daughter receives four times as much as each nephew and each son receives five times as much as each nephew, how much does each daughter receive?  
 (1) ₹ 100 (2) ₹ 600  
 (3) ₹ 800 (4) ₹ 1,000  
 (SSC CGL Prelim Exam. 27.02.2000 (Second Sitting))
- 16.** A and B together have ₹ 158. C has ₹ 101 less than what A and B together have, and B has ₹ 23 more than C. The amount of A is :  
 (1) ₹ 80 (2) ₹ 78  
 (3) ₹ 57 (4) ₹ 88  
 (SSC CGL Prelim Exam. 24.02.2002 (Second Sitting))
- 17.** A sum of ₹ 340.68 is distributed among L, M and N such that L gets ₹ 5.72 more than N and M gets Rs. 2.24 more than L. N gets  
 (1) ₹ 109 (2) ₹ 110.90  
 (3) ₹ 113.56 (4) ₹ 114.72  
 (SSC CGL Prelim Exam. 24.02.2002 (Middle Zone))
- 18.** The ratio of the first and second class fares between two railway stations is 4 : 1 and that of the number of passengers travelling by first and second classes is 1 : 40. If on a day ₹ 1,100 are collected as total fare, the amount collected from the first class passengers is  
 (1) ₹ 315 (2) ₹ 275  
 (3) ₹ 137.50 (4) ₹ 100  
 (SSC Data Entry Operator Exam. 02.08.2009)
- 19.** Three persons walk from place A to place B. Their speeds are in the ratio 4 : 3 : 5. The ratio of the time taken by them to reach B will be :  
 (1) 10 : 15 : 13 (2) 2 : 3 : 4  
 (3) 15 : 20 : 12 (4) 16 : 18 : 15  
 (SSC CHSL DEO & LDC Exam. 28.11.2010 (Ist Sitting))
- 20.** From each of the two given unequal numbers, half the smaller number is subtracted. Then, of the resulting numbers, the larger one is five times than the smaller one. Then the ratio of the larger to smaller one is  
 (1) 2 : 1 (2) 3 : 2  
 (3) 3 : 1 (4) 1 : 4  
 (SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting) (Delhi Zone))
- 21.** A person ordered 4 shirts of brand A and some shirts of brand B. The price of one shirt of brand A was twice that of brand B. When the order was executed, it was found that the numbers of the two brands has been inter-  
 changed. This increased the bill by 40%. The ratio of the number of brand A shirts to that of brand B shirts in the original order was  
 (1) 1 : 2 (2) 1 : 3  
 (3) 1 : 4 (4) 1 : 5  
 (SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting) (Delhi Zone))
- 22.** The ratio of successful and unsuccessful examinees in an examination in a school is 6 : 1. The ratio would have been 9 : 1 if 6 more examinees had been successful. The total number of examinees is  
 (1) 140 (2) 120  
 (3) 200 (4) 160  
 (SSC Constable (GD) & Rifleman (GD) Exam. 22.04.2012 (IInd Sitting))
- 23.** A box filled with paper bundles weighs 36 kg. If the weight of the box and paper bundles respectively are in the ratio of 3 : 22, then the weight of the papers (in grams) is  
 (1) 30680 grams (2) 30710 grams  
 (3) 31500 grams (4) 31680 grams  
 (SSC Assistant Grade-III Exam. 11.11.2012 (IInd Sitting))
- 24.** Two numbers are such that the square of one is 224 less than 8 times the square of the other. If the numbers are in the ratio of 3 : 4, then their values are  
 (1) 12, 16 (2) 6, 8  
 (3) 9, 12 (4) 12, 9  
 (SSC Assistant Grade-III Exam. 11.11.2012 (IInd Sitting))
- 25.** In a school, 10% of number of girls is equal to  $\frac{1}{20}$ th of number of boys. Ratio between the number of boys to number of girls is  
 (1) 1 : 2 (2) 2 : 1  
 (3) 1 : 4 (4) 4 : 1  
 (SSC Graduate Level Tier-I Exam. 19.05.2013)
- 26.** A policeman starts to chase a thief. When the thief goes 10 steps the policeman moves 8 steps. 5 steps of the policeman is equal to 7 steps of the thief. The ratio of the speeds of the policeman and the thief is  
 (1) 25 : 28 (2) 25 : 26  
 (3) 28 : 25 (4) 56 : 25  
 (SSC CGL Tier-I Exam. 19.10.2014 (Ist Sitting))



## RATIO AND PROPORTION

- 27.** A got twice as many marks in English as in Science. His total marks in English, Science and Mathematics is 180. If the ratio of his marks in English and Mathematics is 2 : 3, what is his marks in Science ?  
 (1) 20 (2) 60  
 (3) 30 (4) 40  
 (SSC CHSL DEO & LDC Exam. 16.11.2014)
- 28.** Tom is chasing Jerry. In the same interval of time Tom jumps 8 times while Jerry jumps 6 times. But the distance covered by Tom in 7 jumps is equal to the distance covered by Jerry in 5 jumps. The ratio of speed of Tom and Jerry is  
 (1) 48 : 35 (2) 28 : 15  
 (3) 24 : 20 (4) 20 : 21  
 (SSC CHSL DEO & LDC Exam. 16.11.2014)
- 29.** In a library the ratio of story books and other books is 7 : 2 and there are 1512 story books. Due the collection of some more story books the said ratio becomes 15 : 4. The number of story books collected is  
 (1) 108 (2) 100  
 (3) 205 (4) 97  
 (SSC CGL Tier-II Exam. 12.04.2015 TF No. 567 TL 9)
- 30.** In a 500 metre race, the ratio of speeds of two runners P and Q is 3 : 5. P has a start of 200 metre then the distance between P and Q at the finish of the race is  
 (1) P wins by 100 metre  
 (2) Both reach at the same time  
 (3) Q wins by 100 metre  
 (4) Q wins by 50 metre  
 (SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 IInd Sitting)
- 31.** In a school there were 1554 students and the ratio of the number of the boys and girls was 4 : 3. After a few days, 30 girls joined the school but a few boys left; as a result the ratio of the boys and girls became 7 : 6. The number of boys who left the school is  
 (1) 76 (2) 74  
 (3) 84 (4) 86  
 (SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)
- 32.** The ratio of the radii of two cylinders is 2 : 3, and the ratio of their heights is 5 : 3. The ratio of their volumes will be  
 (1) 9 : 4 (2) 20 : 27  
 (3) 4 : 9 (4) 27 : 20  
 (SSC CPO Exam. 06.06.2016) (1st Sitting)
- 33.** In a cricket match there are three types of tickets say A, B and C each costing Rs. 1000, Rs. 500 and Rs. 200 respectively. The ratio of the tickets sold of categories A, B and C is 3 : 2 : 5. If the total collection from selling the tickets is Rs 2.5 crore, find the total number of tickets sold?  
 (1) 5000 (2) 4800  
 (3) 50000 (4) 52000  
 (SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 05.06.2016) (1st Sitting)
- 34.** An office opens at 10 AM and closes at 5 PM. The lunch interval is for 30 minutes. The ratio of lunch interval to the total period of office hours is  
 (1) 1 : 7 (2) 1 : 14  
 (3) 7 : 1 (4) 14 : 1  
 (SSC CGL Tier-I (CBE) Exam. 03.09.2016) (IInd Sitting)
- 35.** The railway fares of air conditioned sleeper and ordinary sleeper class are in the ratio 4 : 1. The number of passengers travelled by air conditioned sleeper and ordinary sleeper classes were in the ratio 3 : 25. If the total collection was Rs. 37,000, how much did air conditioner sleeper passengers pay ?  
 (1) Rs. 15,000 (2) Rs. 10,000  
 (3) Rs. 12,000 (4) Rs. 16,000  
 (SSC CGL Tier-I (CBE) Exam. 02.09.2016) (IInd Sitting)
- 36.** The ratio of the amount of work done by  $(x - 1)$  labours in  $(x + 1)$  days and that done by  $(x + 1)$  labours in  $(x + 2)$  days is 5 : 6. Then the value of  $x$  is  
 (1) 16 (2) 15  
 (3) 17 (4) 14  
 (SSC CGL Tier-II (CBE) Exam. 30.11.2016)
- 37.** If the ratio of cost price and selling price of an article is 4 : 5, then the percentage of profit will be  
 (1) 20 (2) 0.1  
 (3) 10 (4) 25  
 (SSC CGL Tier-I (CBE) Exam. 03.09.2016) (IInd Sitting)
- 38.** A shopkeeper earns a profit of 15% after selling a book at 20% discount on the printed price. The ratio of the cost price and printed price of the book is :  
 (1) 20 : 23 (2) 23 : 20  
 (3) 16 : 23 (4) 23 : 16  
 (SSC CGL Tier-I (CBE) Exam. 04.09.2016) (IInd Sitting)
- 39.** The rates of working of A and B are in the ratio of 2 : 3. The number of days taken by each of them to finish the work is in the ratio :  
 (1) 2 : 3 (2) 4 : 9  
 (3) 3 : 2 (4) 9 : 4  
 (SSC CGL Tier-I (CBE) Exam. 10.09.2016) (IInd Sitting)
- 40.** In an army selection process, the ratio of selected to unselected candidates was 3 : 1. If 80 less had applied and 40 less selected, the ratio of selected to unselected candidates would have been 4 : 1. How many candidates had applied for the process?  
 (1) 480 (2) 960  
 (3) 240 (4) 1440  
 (SSC CHSL (10+2) Tier-I (CBE) Exam. 15.01.2017) (IInd Sitting)
- 41.** In an army selection process, the ratio of selected to unselected candidates was 4:1. If 90 less had applied and 20 less were selected, the ratio of selected to unselected candidates would have been 5:1. How many candidates had applied for the process ?  
 (1) 1650 (2) 3300  
 (3) 825 (4) 4950  
 (SSC CHSL (10+2) Tier-I (CBE) Exam. 16.01.2017) (IInd Sitting)

### SHORT ANSWERS

#### TYPE-I

1. (1)	2. (3)	3. (3)	4. (4)
5. (1)	6. (3)	7. (1)	8. (3)
9. (4)	10. (2)	11. (4)	12. (1)
13. (1)	14. (2)	15. (3)	16. (2)
17. (3)	18. (3)	19. (4)	20. (1)
21. (3)	22. (2)	23. (2)	24. (2)
25. (3)	26. (3)	27. (3)	28. (4)
29. (4)	30. (4)	31. (1)	32. (1)
33. (2)	34. (4)	35. (1)	36. (3)
37. (1)	38. (2)	39. (3)	40. (2)



41. (3)	42. (3)	43. (3)	44. (3)
45. (2)	46. (3)	47. (2)	48. (4)
49. (1)	50. (4)	51. (2)	52. (3)
53. (3)	54. (1)	55. (4)	56. (4)
57. (4)	58. (3)	59. (3)	60. (1)
61. (3)	62. (3)	63. (1)	64. (3)
65. (1)	66. (2)	67. (4)	68. (1)
69. (3)	70. (3)	71. (1)	72. (4)
73. (4)	74. (3)	75. (2)	76. (1)
77. (1)	78. (1)	79. (1)	80. (3)
81. (3)	82. (2)	83. (1)	84. (1)
85. (2)	86. (3)	87. (3)	88. (1)
89. (4)	90. (2)	91. (3)	92. (2)
93. (4)	94. (3)	95. (2)	96. (3)
97. (2)	98. (2)	99. (2)	100. (2)
101. (2)	102. (3)	103. (2)	104. (2)
105. (3)			

**TYPE-II**

1. (2)	2. (1)	3. (4)	4. (3)
5. (4)	6. (3)	7. (4)	8. (1)
9. (2)	10. (2)	11. (1)	

**TYPE-III**

1. (1)	2. (1)	3. (2)	4. (1)
5. (1)			

**TYPE-IV**

1. (2)	2. (3)	3. (1)	4. (1)
5. (3)	6. (2)	7. (2)	8. (4)
9. (1)	10. (3)	11. (4)	12. (3)
13. (3)	14. (2)	15. (1)	16. (3)
17. (2)	18. (3)	19. (4)	20. (1)
21. (4)	22. (3)	23. (3)	24. (2)
25. (3)	26. (2)	27. (1)	28. (4)
29. (4)	30. (1)		

**TYPE-V**

1. (3)	2. (2)	3. (3)	4. (1)
5. (2)	6. (3)	7. (4)	8. (3)
9. (4)	10. (1)	11. (1)	12. (4)
13. (1)	14. (3)	15. (2)	16. (3)
17. (4)	18. (3)	19. (1)	20. (3)
21. (3)	22. (4)	23. (2)	24. (1)

25. (3)	26. (2)	27. (3)	28. (2)
29. (3)	30. (4)	31. (4)	32. (1)
33. (1)	34. (3)	35. (1)	36. (2)
37. (3)	38. (1)	39. (2)	40. (4)
41. (4)	42. (1)		

**TYPE-VI**

1. (3)	2. (4)	3. (1)	4. (2)
5. (3)	6. (1)		

**TYPE-VII**

1. (3)	2. (1)	3. (3)	4. (3)
5. (2)	6. (2)	7. (3)	8. (3)
9. (1)	10. (3)	11. (4)	12. (1)
13. (4)	14. (2)	15. (3)	16. (1)
17. (4)	18. (3)	19. (2)	20. (3)
21. (1)	22. (3)	23. (4)	24. (1)
25. (2)	26. (2)	27. (4)	28. (3)
29. (3)	30. (1)	31. (2)	

**TYPE-VIII**

1. (1)	2. (3)	3. (4)	4. (1)
5. (1)	6. (2)	7. (3)	8. (3)
9. (1)	10. (4)	11. (4)	12. (3)
13. (1)	14. (3)	15. (2)	16. (2)
17. (4)	18. (4)	19. (1)	20. (4)
21. (1)	22. (2)	23. (4)	24. (4)
25. (3)	26. (2)	27. (1)	28. (3)
29. (4)	30. (3)	31. (3)	32. (1)
33. (2)	34. (4)	35. (1)	36. (4)
37. (1)	38. (1)	39. (4)	40. (2)
41. (1)	42. (2)	43. (3)	44. (2)
45. (2)	46. (3)	47. (4)	48. (3)
49. (3)	50. (2)	51. (1)	52. (4)
53. (1)	54. (4)	55. (4)	56. (4)
57. (4)	58. (2)	59. (3)	60. (3)
61. (1)	62. (2)	63. (4)	64. (1)
65. (2)	66. (2)	67. (2)	68. (2)
69. (3)	70. (3)	71. (1)	72. (2)
73. (3)	74. (2)	75. (3)	76. (2)
77. (2)	78. (2)	79. (2)	80. (1)
81. (4)	82. (4)		

**TYPE-IX**

1. (1)	2. (4)	3. (4)	4. (1)
5. (4)	6. (1)	7. (3)	8. (3)
9. (2)	10. (1)	11. (3)	12. (3)
13. (2)	14. (1)	15. (4)	16. (1)
17. (2)	18. (2)	19. (1)	20. (4)
21. (3)	22. (3)	23. (2)	24. (4)
25. (3)	26. (1)	27. (1)	28. (2)
29. (4)	30. (3)		

**TYPE-X**

1. (2)	2. (1)	3. (2)	4. (3)
5. (2)	6. (2)	7. (4)	8. (3)
9. (2)	10. (1)	11. (3)	12. (4)
13. (2)	14. (3)	15. (2)	16. (3)

**TYPE-XI**

1. (4)	2. (3)	3. (1)	4. (2)
5. (1)	6. (1)	7. (4)	8. (4)
9. (2)	10. (4)	11. (4)	12. (4)
13. (4)	14. (3)	15. (2)	16. (1)
17. (3)	18. (2)	19. (4)	20. (2)
21. (2)	22. (2)	23. (2)	24. (2)
25. (3)	26. (3)	27. (2)	28. (4)
29. (1)	30. (1)	31. (2)	32. (3)
33. (4)	34. (1)	35. (3)	36. (4)
37. (1)	38. (2)	39. (1)	40. (4)
41. (2)	42. (3)	43. (4)	44. (1)
45. (2)	46. (3)	47. (3)	48. (1)
49. (1)	50. (1)		

**TYPE-XII**

1. (3)	2. (3)	3. (3)	4. (1)
5. (4)	6. (3)	7. (1)	8. (1)
9. (1)	10. (1)	11. (3)	12. (2)
13. (4)	14. (3)	15. (3)	16. (2)
17. (1)	18. (4)	19. (3)	20. (3)
21. (2)	22. (1)	23. (4)	24. (2)
25. (2)	26. (3)	27. (3)	28. (4)
29. (1)	30. (2)	31. (1)	32. (2)
33. (3)	34. (2)	35. (3)	36. (1)
37. (4)	38. (3)	39. (3)	40. (1)
41. (1)			