



## ARITHMETIC COMPETITION

### Category II: Class V and VI

- The average age of three boys is 15 years. If their ages are in the ratio 3:5:7, the age of the youngest boy is  
(A) 21 years                      (B) 18 years                      (C) 15 years                      **(D) 9 years**
- The average of 5 consecutive numbers is 18. The highest of these numbers will be  
(A) 24                      (B) 18                      **(C) 20**                      (D) 22
- Find the average increase rate if increase in the population in the first year is 30% and that in the second year is 40%.  
**(A) 41**                      (B) 56                      (C) 40                      (D) 38
- If three articles are sold for the CP of 4, then the profit percent is  
(A) 23%                      **(B)  $33\frac{1}{3}$**                       (C) 40%                      (D) 50%
- Shanta's salary was reduced by 10%. In order to have his salary back to the original amount, the present salary is to be increased by  
(A) 10%                      (B) 11%                      **(C)  $11\frac{1}{9}$**                       (D) 12%
- To get 35% of a number, the number should be multiplied by  
**(A)  $\frac{7}{20}$**                       (B) 3.5                      (C)  $\frac{\sqrt{7}}{20}$                       (D)  $\frac{5}{20}$
- The sum of two numbers is 100 and their difference is 50 the ratio between them will be  
(A) 2:1                      **(B) 3:1**                      (C) 4:1                      (D) 5:1
- The average weight of a class of 15 boys and 10 girls is 38.4 kg. If the average weight of the boys is 40 kg, then what is the average weight of the girls?  
(A) 36.5 kg                      (B) 35 kg                      **(C) 36 kg**                      (D) 35.6 kg
- A mason can build a tank in 12 hours. After working for 6 hours he took the help of a boy and finishes the work in another 5 hours. The time that the boy will take alone to complete the work is  
(A) 30 hours                      (B) 45 hours                      **(C) 60 hours**                      (D) 64 hours
- A person travels a certain distance at 3 km/h and reaches 15 minutes late. If he travels at 4 km/h, he reaches 15 minutes earlier. The distance he has to travel is  
(A) 4.5 km                      **(B) 6 km**                      (C) 7.2 km                      (D) 12 km



11. The two digit number, which when divided by sum of the digits and product of the digits respectively, the remainder is the same and the difference of the quotient is 1. Find the number  
(A) 14 (B) 23 **(C) 32** (D) 41
12. Ten chairs and six tables together cost Rs 6200, three chairs and 2 tables together cost Rs 1900. Find the cost of four chairs and five tables.  
**(A) Rs 3000** (B) Rs 3300 (C) Rs 3500 (D) Rs 3800
13. A swimming pool 70 m long, 44 m wide and 3m deep is filled by water flowing from a pipe at the rate of  $30,800 \text{ cm}^3$  per second. The time taken to fill the swimming pool is  
(A)  $\frac{71}{2}$  hours (B) 80 hours (C)  $\frac{150}{3}$  hours **(D) none of the above**
14. The annual increase in population of a town is 5%. If the present population is 1, 60,000, then the population after 4 years will be  
**(A) 1,94,481** (B) 1,78,641 (C) 1,92,000 (D) 1,65,000
15. A certain sum on Simple Interest becomes double in 20 years. In how many years it will become 4 times?  
**(A) 40 years** (B) 50 years (C) 60 years (D) 80 years
16. A sum of money invested at compound interest double itself in 4 years. In what period it will amount to 8 times itself at same rate?  
(A) 18 years **(B) 12 years** (C) 16 years (D) 24 years
17. Four numbers in the ratio 1:3:4:7 add up to give a sum of 105. Find the values of the biggest number.  
(A) 42 (B) 35 **(C) 49** (D) 63
18. The difference between two positive numbers is 10 and the ratio between them is 5:3. Find the product of the two numbers.  
**(A) 375** (B) 175 (C) 275 (D) 125
19. If 65% of  $x = 13\%$  of  $y$ , find the value of  $x$  if  $y = 2000$ .  
(A) 200 (B) 300 **(C) 400** (D) 500
20. The salary of Romen is 30% more than Shamu. Find by what percentage is the salary of Shamu less than that of Romen.  
(A) 26.12% **(B) 23.07%** (C) 21.23% (D) 27.27%
21. A number  $x$  lies between 0 and 1. Which of the following is true?  
(A)  $x > \sqrt{x}$  (B)  $z > \frac{1}{z}$  (C)  $z^3 > z^2$  **(D)  $\frac{1}{z} > \sqrt{z}$**



22. The last digit of the number obtained by multiplying the numbers:  $71 \times 72 \times 73 \times 74 \times 75 \times 76 \times 77 \times 78 \times 79$  is

- (A) 9                      (B) 2                      (C) 7                      (D) 0

23. The number  $x$  is not divisible by 3. Which of the following is not a multiple of 3?

- (A)  $2x$                       (B)  $18x$                       (C)  $27x$                       (D)

24. The number of prime factors of 1420 is

- (A) 3                      (B) 4                      (C) 2                      (D) 5

25. The LCM of 5, 8, 18, 22 will not be divisible by

- (A) 5                      (B) 9                      (C) 11                      (D) 7