

1. Class B has 50% more students than Class A. The number of girls in class A is equal to the number of boys in class B. The percentage of girls is the same in both classes. What percentage of the student group is boys? (TCS)

- A) 33.33% B) 40% C) 25% D) none of these

Hint: - Let the number of girls in class A = x, Let the number of boys in class A = y

Total number of students = x + y, Proportion of girls = $x/(x+y)$

Number of boys in class B = x

Total number of students in class B = $1.5(x + y)$

$$(x+y) \cdot 100 / 2.5(x+y) = 40\%$$

Answer B

2. A earns 25% more than B. C earns 25% more than A. A earns 20% more than D. E earns 20% more than A. A, B, C, D, and E earn integer amounts less than Rs. 100. What is the total amount earned by all five of them put together? (Infosys)

- A) Rs. 300 B) Rs. 245 C) Rs. 305 D) None of these

Hint: - $A = 5/4 * B$ or $B = 4/5 * A$

$$C = 5/4 * A$$

$$A = 6/5 * D \text{ or } D = 5/6 * A$$

$$E = 6/5 * A$$

Take the LCM of 5,4,6 to find the value of A

Answer C

3. Traders A and B buy two goods for Rs. 1000 and Rs. 2000 respectively. Trader A marks his goods up by x%, while Trader B marks his goods up by 2x% and offers a discount of x%. If both make the same non-zero profit, find x. (TCS)

- A) 25% B) 12.5% C) 37.5% D) none of these

Hint: - SP of trader A = $1000(1 + x)$.

$$\text{Profit of trader A} = 1000(1 + x) - 1000.$$

$$\text{MP of trader B} = 2000(1 + 2x).$$

$$\text{SP of trader B} = 2000(1 + 2x)(1 - x).$$

$$\text{Profit of trader B} = 2000(1 + 2x)(1 - x) - 2000.$$

$$\text{Both make the same profit} \Rightarrow 1000(1 + x) - 1000 = 2000(1 + 2x)(1 - x) - 2000$$

Answer A

4. On a certain sum of money, compound interest earned at the end of three years = Rs. 1456. Compound interest at the end of two years is Rs. 880. Compute the principal invested. (TCS)

- A) Rs. 2,400 B) Rs. 2,800 C) Rs. 2,000 D) none of these

Hint: - CI Formula

Answer C

5. Ram deposits Rs. P with a bank at r% compound interest and sees it reach Rs. 16P in 20 years. If he had invested the same amount at r% simple interest for 20 years, what would be the amount? (Infosys)

- A) Between Rs. 2P and 2.5P B) Between Rs. 2.5P and 3P

- C) Between 3.5P and 4P D) none of these

Hint: - In order for the money to double, the approximate formula for $r = 72/n = 14.4\%$ or more precisely $69.3/n$.

The rate of interest should be roughly 14 – 15%

If he had invested this in simple interest,

$$A = P + P * 20 * (14 \text{ to } 15 \%) / 100 = 3.8P \text{ to } 4P$$

Answer C

6. A shopkeeper purchased 10 boxes of pencils containing 10 pencils each at Rs. 100 per box and sold each pencil at a profit of 12%. What is the total sale price? (Cognizant)

- A) Rs 1100 B) Rs 1120 C) Rs 1200 D) None of these

Hint: - Basic approach of Profit and Loss

Answer B

7. Find compound interest on Rs. 8000 at 15% per annum for 2 years 4 months, compounded annually. (Tech Mahindra)

- A) 2109 B) 3109 C) 4109 D) none of these

Hint: - Formula of CI

Answer B

8. At what rate, percent per annum, will a sum of money double in 8 years? (Cognizant)

- A) 12.5% B) 13.5% C) 11.5% D) none of these

Hint: - Formula of SI

Answer A

9. A sum of money lent at compound interest for 2 years at 20% per annum would fetch Rs.482 more if the interest was payable half-yearly than if it was payable annually. The sum is. (Accenture)

- A) 10000 B) 20000 C) 40000 D) none of these

Hint: - Formula of Amount on CI.

Answer B

10. Salaries of Ravi and Sumit are in the ratio 2:3. If the salary of each is increased by Rs. 4000, the new ratio becomes 40:57. What is Sumit's salary? (Accenture)

- A) 38000 B) 46800 C) 36700 D) none of these

Hint: - $(2X+4000)/(3X+4000) = 40/57$

Answer A

11. The ratio of the angles of a triangle is 3:4:5. The three angles of a quadrilateral are equal to the three angles of this triangle. What is the sum of the largest angle and the second smallest angle of the quadrilateral? (Infosys)

- A) 225 deg B) 210 deg C) 205 deg D) none of these

Hint: - Concept of ratio

Answer A

12. The price of a movie ticket was increased in the ratio 9:10. What is the increase in the revenue (in Rs.) of the cinema hall, if the original fare was Rs 180 and 2200 tickets were sold? (Wipro)

- A) 44000 B) 440000 C) 39600 D) none of these

Hint: - Concept of ratio

Answer B

13. The ratio of the first and second-class fares between the two stations is 6, 4 and the number of passengers traveling by first and second-class is 130. If Rs. 2100 is collected as fare, what is the amount collected from first-class passengers? (Wipro)

- A) Rs . 250 B) Rs. 200 C) Rs. 100 D) None of these

Hint: - Ratio of the amounts collected from 1st and 2nd class = $(6 \times 1) : (4 \times 30) = 1 : 20$. \therefore Amount collected from 1st class passengers = $(1/21) \times 2100 = 100$.

Answer C

14. 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. How many litres of liquid A was contained by the can initially (Cognizant)

- A) 10 B) 20 C) 21 D) none of these

Hint: - $(7x - 21/4)/(5x - 15/4) = 7/9$

Answer C

15. P can complete the work in 12 days, working 8 hours a day. Q can complete the same work in 8 days, working 10 hours a day. If both p and Q work together, working 8 hours a day, in how many days can they complete the work? (Infosys)

- A) 60/11 B) 61/11 C) 71/11 D) none of these

Hint: - P can complete the work in (12×8) hrs = 96 hrs, Q can complete the work in (8×10) hrs = 80 hrs. Use the LCM method to solve the questions.

Answer A