Cyient Aptitude

1. **The cost price of 20 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is:**

A. 15
B. 16
C. 18
D. 25

Answer - B. 16
Explanation:
Let Cost Price of each article be Rs.1
Given, C.P. of x articles = Rs. x.
S.P. of x articles = Rs. 20.
Profit = Rs. (20 - x).
((20 - x)/x) * 100 = 25
2000 - 100x = 25x
125x = 2000
Therefore, x = 16.

2. **An article is sold at 25% profit. If the CP and the SP of the article are increased by Rs 60 and Rs 30 respectively, the profit% decreases by 15%. Find the cost price of the article.**

A. Rs 190
B. Rs 240
C. Rs 285
D. Rs 305

Answer - B. Rs 240
Explanation:
CP = x
Then, SP = (125/100)*x = 5x/4
New CP = (x+60)
New SP = (5x/4 + 30)
New profit% = 25-15 = 10
So (5x/4 + 30) = (110/100) * (x+60)
Hence, x = 240

3. **5 kg of an article is bought at Rs 480, 1/3rd of it is sold at a profit of 20%. At what loss% should the remaining article be sold so that there is an overall profit of 3 1/3%?**

A. 5%
B. 6.5%
C. 7%
D. 8.5%

Answer - A. 5%
Explanation:
Let the remaining 2/3rd be sold at x% loss
1/3(20) + 2/3(-x) = 3 1/3 [x% loss, so used – sign] 1/3(20) + 2/3(-x) = 10/3
Solve, x = 5%

4. **In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?**

A. 30%
B. 70%
C. 100%
D. 250%

Answer - B. 70%
Explanation:
Let Cost Price= Rs. 100. Then, Profit = Rs. 320
Selling Price = Rs. 420.
C.P. = 125% of Rs. 100 = Rs. 125
New S.P. = Rs. 420.
Profit = Rs. (420 - 125) = Rs. 295.
Therefore, Required percentage = 295/420 * 100% = 1475/21% = 70% (Approximate Percentage)

5. **A and B invested rupees 4000 and 5000 respectively in a business. A being an active partner will get rupee 50 every month extra for running the business. In a year if A receive a total of 800 rupees, then what will B get from the business.**

A. 200
B. 250
C. 300
D. 400

Answer – B. 250
Explanation:

The ratio in which the profit will divide – 4:5.
A will get 50*12 = 600 rupees extra
So, from business A got 200 rupees.
Then, (4/9)*P = 200, P = 450. So B will get 450 – 200 = 250 rupees

6. **In a famous hotel, the rooms were numbered from 201 to 230, each room gives an earning of Rs. 5000 for the first fifteen days of a month and for the latter half, Rs. 3000 per room. Find the average income per room per day over the month?**

A. 2000
B. 3000
C. 4000
D. 5000

Answer – C. 4000
Explanation:
Total number of rooms = 29
Average = [(5000 * 30 * 15) + (3000 * 30 * 15)]/(30*30)
Average earning per room = 4000

7. **A and B undertake to do a piece of work for Rs. 450. A can do it in 20 days and B can do it in 40 days. With the help of C, they finish it in 8 days. How much should C be paid for his contribution?**

A. Rs.50
B. Rs.60
C. Rs.90
D. Rs.180

Answer - D. Rs.180
Explanation:
A & B would have done 8/20 & 8/40 of the work respectively in 8 days.
Together they have done 3/5th of the work.
This implies that C has done 2/5th of the work.
Thus, C should be paid 2/5th of the amount, that is 450 × 2/5 = Rs. 180.

8. **P and Q can do a piece of work in 40 days, Q and R can do it in 120 days. If Q alone can do it in 180 days, in how many days will P and R do it together?**

A. 20 days
B. 25 days

C. 30 days
D. 45 days

Answer - D. 45 days
Explanation:
P + Q take 40 days.
Q alone takes 180 days.
P will take 1/40 – 1/180 = 7/360 ⇒ 360/7 days.
Q + R take 120 days.
Hence, R alone will take 1/120 – 1/180 = 1/360
It seems for 360 days.
Therefore, P & R together will take 7/360 + 1/360= 8/360 ⇒ 360/8 = 45
Therefore, it takes 45 days to complete the work.
9. **2 men and 3 women can together complete a piece of work in 4 days and 3 men and 2 women together can complete work in 3 days. In how many days 10 women will complete this work?**

A. 6 days
B. 7 days
C. 9 days
D. 12 days

Answer - A. 6 days
Explanation:
Given that
2m + 3w = 4
3m + 2w = 3
So 4(2m + 3w) = 3(3m + 2w)
8m + 12w = 9m + 6w
6w = 1m
Given 2m + 3w = 4, so 2*(6w) + 3w = 4
Therefore, 15 women in 4 days
Hence, 10 women in (15*4)/10 = 6 days

10. **20 men can complete a piece of work in 14 days. 7 men started the work and after 20 days, 7 more men joined the work. In how many days the remaining work will be completed?**

A. 5 days
B. 10 days
C. 15 days

D. 20 days

Answer - B. 10 days
Explanation:
Let (7+7) complete remaining work in x days. So
20*14 = 7*20 + 14*x
x = 10 days

11. **A truck driving on a highway passed a man walking at the rate of 15km/hr in the same direction. He could see the truck for 2 minutes and up to 500 meters. Find the speed of the truck?**

A. 27 km/hr
B. 30 km/hr
C. 32 km/hr
D. 42 km/hr

Answer – B. 30 km/hr
Explanation:
x-15=(500/120) *18/5
x=30

12. **Varun traveled a distance of 50 km in 7 hrs. He traveled the distance partly on foot at 5 kmph and partly on a bicycle at 8 kmph. What is the distance that he traveled on foot?**

A. 2 km
B. 5 km
C. 10 km
D. 18 km
Answer – C.10 km
Explanation:
x/5 + 50-x/8 =7
8x+250-5x = 7*40
3x+250 = 280
3x = 30
X = 30/3 = 10 km

13. **The side of a square-shaped garden is 8√2. Find the maximum possible distance between any two corners**

A. 15 meters
B. 16 meters
C. 17 meters
D. 18 meters

Answer – B. 16 meters
Explanation:
According to the given data
d = a√2
a = 8√2
d = 16 m

14. **If the side of the square is increased by 30%, then how much % does its area get increased?**

A. 49%
B. 59%
C. 69%
D. 79%

Answer – C. 69%
Explanation:
Area of the plot = 1.3 * 1.3 = 1.69 = 69%
15. **The length of a rectangle is reduced by 30%. By what percent would the width have to be increased to maintain the original area?**

A. 25%
B. 32.76%
C. 35.50%
D. 42.86%

Answer – D. 42.86%
Explanation:
Width = 30*100/100-30
= 3000/70 = 42.86%