Tech Mahindra Aptitude Questions and Answers with Explanation

1. Raja buys some apples at the rate of four for a rupee and same numbers of oranges at three for a rupee. To make a profit of 25%, Raja should sell 6 apples for.

A. 5.75
B. 6.75
C. 3.75
D. 4.75

Answer – D. 4.75
Explanation:
let Raja buys 'x' apples at rate four for a rupee and 'x' apples at three for a rupee.
So, cost price = x/4 + x/3
Question is asking about 6 apples
Then, CP = 6/4 + 6/3 = 3.5
Now SP = (125/100)*3.5 = 4.75
Therefore, Raja should sell 6 apples for 4.75

2. Prasanth bought an article at a 25 percent discount on the labeled price. He again sells the article at 20 percent on labeled price. Find the percent profit earned by Prasanth in the whole transaction

A. 50%
B. 60%
C. 30%
D. 40%

Answer – B. 60%
Explanation:
Let the labeled price is 100. Prasanth bought it for 75 after getting a 25% discount.
Now he sells the article at (120/100)*100 = 120. So % profit he earns = (45/75)*100 = 60

3. A train running at 45 km/hr takes 36 sec to pass a platform. Next, the train takes 12 sec to pass a man walking at the speed of 15 km/hr in the same direction. Find the length of the platform.

A. 250 m
B. 300 m
C. 350 m
D. 400m

Answer – C. 350m
Explanation:

Let us assume 'T' and 'P' are the length of train and platform respectively

T = 12*30*5/18 = 100 meter

P + 100 = 45*5/18*36

P= 350

4. The sum of the present ages of a Suresh and his son is 60 years. Five years ago, Suresh's age was four times the age of his son. What will be the age of Suresh's son?

A. 17
B. 18
C. 19
D. 15

Answer – D. 15
Explanation:
Let, Present age of son be x
And then, Suresh age is (60 -x) years respectively.
(60 – x) – 5= 4(x – 5)
55 – x = 4x – 20
5x = 75
x = 15

5. A can finish a work in 27 days, B in 9 days and C in 12 days. B & C start the work but are forced to leave after 4 days. The remaining work was done by A in:

A. 6 days
B. 9 days
C. 10 days
D. 12 days

Answer - A. 6 days
Explanation:
(B+C)it's one day's work = 1/9+1/12 = 7/36
B & C in 3 days = 4*7/36 = 7/9
Remaining work = 1-(7/9) = 2/9
1/27 work is done by A in 1 day.
2/9 work is done by A in 27*2/9 = 6 days

6. A sum of money invested at CI to Rs.800 in 3 years and to Rs.840 in 4 years. Find the rate of interest in PA?

A. 2%
B. 4%
C. 5%
D. 6%

Answer - C. 5%
Explanation:
CI for 3 yr = 800
CI for 4 yr = 840
CI for 1 yr = 40
R = (100 × 40)/(800×1) = 10/2 = 5%

7. **Two vessels contain milk and water in the ratio of 7:3 and 2:3 respectively. Find the ratio in which the contents of both the vessels must be mixed to get a new mixture containing milk and water in the ratio 3:2.**

A. 2:1
B. 2:3
C. 3:1
D. 3:5

Answer – A. 2:1
Explanation:
Let the ratio be k:1
then in the first mixture, milk = 7k/10 and water = 3k/10
and in the second mixture, milk = 2/5 and water = 3/5
(7k/10 + 2/5)/(3k/10 3/5) = 3/2
K = 2, so the ratio will be 2:1

8. **A container filled with a liquid containing 4 parts of water and 6 parts of milk. How much of mixture must be drawn off and filled with water so that the mixture contains half milk and half water?**

A. 1/3
B. 1/4
C. 1/5
D. 1/6

Answer – D. 1/6
Explanation:
Let water = 40 liters and milk are 60 liters.

Water = 40 – x*(2/5) + x and milk = 60 – x*(3/5) (x is the amount of mixture taken out)
Equate both the equation, we get x = 50/3.
Now, mixture drawn off = (50/3)/100 = 1/6

9. Two cans M and N contains milk and water in the ratio of 3:2 and 7:3 respectively. The ratio in which these two cans be mixed so as to get a new mixture containing milk and water in the ratio 7:4.

A. 4:7
B. 7:3
C. 7:4
D. 7:5

Answer – C. 7:4
Explanation:
Milk in 1st can = 3/5 and water = 2/5. Similarly in second can milk = 7/10 and water = 3/10.
Take the ratio = k: 1
(3k/5 + 7/10)/(2k/5 + 3/10) = 7/4
Solve for k, we get k = 7/4. So the ratio is 7: 4

10. In a hostel, there are 30 students and if the number of students increased by 5 then the expense is increased by 40 per day. But the average expenditure diminishes by 3. Find the original expenditure.

A. 810
B. 870
C. 910
D. 950

Answer – B. 870
Explanation:
Let the average expenditure be P.
(30*P + 40)/35 = P-3
P = 29. So expenditure = 29*30 = 870

11. The average of 10 reading is 25.5. In this, the average of the first three is 20 and the next four is 26. If the eight reading is 5 less than the night one and also 8 less than the tenth one, then find the eight reading?

A. 28
B. 26
C. 24

D. 22

Answer – B. 26
Explanation:
the sum of all ten reading = 255
the sum of the first three = 60 and the sum of next 4 = 104.
Sum of 8th, 9th and 10th reading = 91 = 3*x + 13
x = 26.