

## 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:**

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

$$T = 12 \times 30 \times 5 / 18 = 100 \text{ meter}$$

$$P + 100 = 45 \times 5 / 18 \times 36$$

$$P = 350$$

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:**

$$(B+C)\text{it's one day's work} = 1/9 + 1/12 = 7/36$$

$$B \& C \text{ in 4 days} = 4 \times 7/36 = 7/9$$

$$\text{Remaining work} = 1 - (7/9) = 2/9$$

1/27 work is done by A in 1 day.

$$2/9 \text{ work is done by A in } 27 \times 2/9 = 6 \text{ days}$$

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?

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- 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

$$R = (100 \times 40)/(800 \times 1) = 10/2 = 5\%$$

**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.

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Water =  $40 - x \cdot (2/5) + x$  and milk =  $60 - x \cdot (3/5)$  ( $x$  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  $P$ .

$$(30 \cdot P + 40)/35 = P - 3$$

$P = 29$ . So expenditure =  $29 \cdot 30 = 870$

**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 ninth one and also 8 less than the tenth one, then find the eight reading?**

- A. 28
- B. 26
- C. 24

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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 =  $3*x + 13$

$x = 26$ .