



1. Anusha went shopping to buy a watch with some money. She selected a watch, which is market Rs.400 higher price than the money she had. But shopkeeper gave two successive discounts of 10% and 15% respectively on the market price of the watch. Then she could buy that watch and also another watch worth Rs.540 with all the money she had. Then what is the market price on the first watch?

- A. Rs.3060
- B. Rs.3600
- C. Rs.4000
- D. Rs.4200

**Answer – C. Rs.4000**

**Explanation:**

$$(x+400) \times 90/100 \times 85/100 + 540 = x$$

$$x = 3600$$

$$\text{Market Price} = 3600 + 400 = 4000$$

Therefore, the exact market price on the first watch is Rs. 4000.

2. Priya sold a machine to Sahithi at a profit of 30%. Sahithi sold this machine to Ajay at a loss of 20%. If Priya paid Rs.5000 for this machine, then find the cost price of a machine for Ajay?

- A. Rs. 4750
- B. Rs. 4800
- C. Rs. 5200
- D. Rs. 6200

**Answer – C. Rs. 5200**

**Explanation:**

Given that Rate 1 = 30% and Rate 2 = 20%

$$\text{Then, } 5000 \times 130/100 \times 80/100 = 5200$$

Therefore, the cost price of the machine for Ajay is Rs. 5200.

3. What will be the profit percentage after selling an article at a certain price if there is a loss of 40 percent when the same article is sold at 2/5 of the earlier selling price?

- A. 20%
- B. 40%
- C. 50%
- D. 90%

# Honeywell Aptitude



**Answer – C. 50%**

**Explanation:**

Cost Price =  $\frac{2}{3}$  of Selling Price

Then,  $SP = \frac{(100+P)}{100}$  of CP

$CP = \frac{2}{3}[\frac{(100+P)}{100}] CP$

By solving the above equations, we will get  $P = 50$

Therefore, the profit percentage is 50%.

**4. A dealer marks his goods 20% above the cost price. He then allows some discount on it and makes a profit of 8%. The rate of discount is?**

- A. 4%
- B. 6%
- C. 10%
- D. 12%

**Answer - C. 10%**

**Explanation:**

Let us assume Cost Price = Rs. 100

Then, according to the given data Marked Price = Rs. 120,

Selling Price = Rs. 108

Hence, Discount =  $(\frac{12}{120} \times 100)\% = 10\%$

**5. A retailer buys a sewing machine at a discount of 15% and sells it for Rs. 1955. Thus, he makes a profit of 15%. The discount is?**

- A. Rs. 270
- B. Rs. 290
- C. Rs. 300
- D. Rs. 350

**Answer - C. Rs. 300**

**Explanation:**

Let us assume Marked price be Rs.  $x$

Discount availed by the retailer = 15% of Rs.  $x$

Cost Price of the machine by the retailer =  $(x - 15\% \text{ of } x) = Rs. \frac{17x}{20}$

15% of  $\frac{17x}{20} = 1955 - \frac{17x}{20}$

$\frac{51x}{400} + \frac{17x}{20} = 1955$  or

$x = 2000$  Discount received retailer

Hence, 15% of Rs. 2000 = Rs. 300



6. A boat takes 28 hours for traveling downstream from point A to point B and coming back to point C midway between A and B. If the velocity of the stream is 6km/hr and the speed of the boat in still water is 9 km/hr, what is the distance between A and B?

- A. 115 km
- B. 120 km
- C. 140 km
- D. 165 km

**Answer – B. 120 km**

**Explanation:**

Downstream speed =  $9+6 = 15$

Upstream speed =  $9-6 = 3$

Now total time is 28 hours

If the distance between A and B is  $d$ , then distance BC =  $d/2$

Now distance/speed = time, so

$$d/15 + (d/2)/3 = 28$$

By solving we get  $d = 120$  km

7. A 600-meter long train crosses a signal post in 40 seconds. How long will it take to cross a 3-kilometer long bridge, at the same speed?

- A. 4 mins
- B. 5 mins
- C. 6 mins
- D. 7 mins

**Answer - A. 4 mins**

**Explanation:**

By Analyzing the given data speed is

$$S = 600/40 = 15 \text{ mps}$$

$$S = 3600/15 = 240 \text{ sec} = 4 \text{ mins}$$

8. A train 100 m long crosses a platform 125 m long in 15 sec; find the speed of the train?

- A. 45 kmph
- B. 50 kmph
- C. 54 kmph
- D. 60 kmph

# Honeywell Aptitude



**Answer - C. 54 kmph**

**Explanation:**

Distance =  $100 + 125 = 225$

Time = 15

Therefore, Speed = Distance/Time,

$S = 225/15 * 18/5 = 54$  kmph

**9. If a man can cover 12 metres in one second, how many kilometres can he cover in 3 hours 45 minutes?**

- A. 168
- B. 162
- C. 150
- D. 156

**Answer - B. 162**

**Explanation:**

Given that

A man can cover 12 meters in one second.

Now convert m/s to kmph

Then,  $12 \text{ m/s} = 12 * 18/5$  kmph

3 hours 45 minutes =  $3 \frac{3}{4}$  hours =  $15/4$  hours

Distance = speed \* time =  $12 * 18/5 * 15/4$  km = 162 km.

**10. Swaroop traveled from city X to city Y at a speed of 40 kmph and from city Y to city Z at 60 kmph. What is the average speed of Swaroop from X to Z given that the ratio of distances between X to Y and Y to Z is 2 : 3?**

- A. 48 kmph
- B. 50 kmph
- C. 52 kmph
- D. 56 kmph

**Answer - B. 50 kmph**

**Explanation:**

Let us assume

The distance between city X to Y and Y to Z be  $2x$  km and  $3x$  km respectively.

Total time taken to cover from X to Z

$= (2x)/40 + (3x)/60$

$= (6x + 6x)/120$

$= 12x/120$

$$= x/10$$

$$\text{Hence, Average speed} = (2x + 3x)/(x/10) = 50 \text{ kmph.}$$

11. In a hostel there were 100 students. To accommodate 20 more students the average is decreased by rupees 5. But total expenditure increased by Rs.400. Find the total expenditure of the hostel now?

- A. Rs.2300
- B. Rs.4600
- C. Rs.5000
- D. Rs.5400

**Answer - D. Rs.5400**

**Explanation:**

According to the given data

$$100x + 400 = 12(x - 5)$$

$$x = 50$$

Substitute x value in the above equation

$$\text{Then, } 100 * 50 + 400 = 5400$$

Therefore, the total expenditure of the hostel now is Rs. 5400.

12. The average marks of a class of 30 students are 40 and that of another class of 50 students is 60. Find the average marks of all the students?

- A. 47.5
- B. 50
- C. 52.5
- D. 59

**Answer - C. 52.5**

**Explanation:**

According to the given information

$$\text{The Sum of the marks for the class of 30 students} = 30 * 40 = 1200$$

$$\text{The Sum of the marks for the class of 50 students} = 50 * 60 = 3000$$

$$\text{The Sum of the marks for the class of 80 students} =$$

$$1200 + 3000 = 4200$$

$$\text{Hence, Average marks of all the students} = 4200/80 = 52.5$$

13. The average age of a group of 10 persons was decreased by 3 years when one person, whose age was 42 years, was replaced by a new person. Find the age of the new person?



- A. 8 years
- B. 12 years
- C. 18 years
- D. 24 years

**Answer - B. 12 years**

**Explanation:**

Let us assume

The Initial average age of the 10 persons is P.

Age of the new person Q.

Sum of the ages of the initial 10 persons = 10P

New average =  $(P-3) \cdot 10(P-3) = 10P - 42 + Q \Rightarrow Q = 12$

Therefore, the age of the new person is 12 years

**14. The arithmetic mean of the scores of a group of students in a test was 52. The brightest 20% of them secured a mean score of 80 and the duller 25% a mean score of 31. The mean score of the remaining 55% is?**

- A. 51.4
- B. 52.6
- C. 56.1
- D. 57.3

**Answer – A. 51.4**

**Explanation:**

Let the required mean score be 'x'

Then,  $20 * 80 + 25 * 31 + 55 * x = 52 * 100$

$1600 + 775 + 55x = 5200$

$55x = 2825$

$x = 51.4$

Therefore, the mean score of the remaining 55% is 51.4

**15. A cricketer has completed 10 innings and his average is 21.5 runs. How many runs must he make in his next innings so as to raise his average to 24?**

- A. 44
- B. 45
- C. 48
- D. 49

**Answer – D. 49**



**Explanation:**

Total of 10 innings =  $21.5 * 10 = 215$

Suppose he needs a score in 11th innings

Then average in 11 innings =  $(215 + x) / 11 = 24$

Hence,  $x = 264 - 215 = 49$

**16. P sells his goods 50% cheaper than Q but 50% dearer than R. The cheapest is?**

- A. P
- B. Q
- C. R
- D. All are alike

**Answer - C. R**

**Explanation:**

Let Q = 100

P = 50

$R * (150/100) = 50$

$3R = 100$

$R = 33.3$

Therefore, R is the cheapest

**17. A man saves 20% of his monthly salary. If an account of the dearness of things he is to increase his monthly expenses by 20%, he is only able to save Rs. 200 per month. What is his monthly salary?**

- A. Rs. 5000
- B. Rs. 6000
- C. Rs. 7500
- D. Rs. 8500

**Answer - A. Rs. 5000**

**Explanation:**

Income = Rs. 100

Expenditure = Rs. 80

Savings = Rs. 20

Present Expenditure  $80 * (20/100) = Rs. 96$

Present Savings =  $100 - 96 = Rs. 4$

For 100 it is 4

By analyzing the monthly salary is Rs. 5000.



18. Ajay spends 45% of his monthly income on household items, 25% of his monthly income on buying clothes, 7.5% of his monthly income on medicines and saves the remaining amount which is Rs. 9000. Find his monthly income.

- A. Rs. 40000
- B. Rs. 36000
- C. Rs. 50000
- D. Rs. 45000

**Answer - A.** Rs. 40000

**Explanation:**

Let the monthly income of Ajay be Rs.  $x$

Then, Savings of Ajay =  $x - (45 + 25 + 7.5)/100 * x = 22.5/100 x$

$22.5/100 x = 9000$

Therefore,  $x = 40000$ .

19. In a class of 140 students, 60% of them passed. By what percent is the number of students who passed more than the number of failed students?

- A. 20%
- B. 30%
- C. 40%
- D. 50%

**Answer - D.** 50%

**Explanation:**

Number of students passed = 60% of 140 =  $60/100 * 140 = 84$

Number of students failed =  $140 - 84 = 56$ .

Required percentage =  $28/56 * 100 = 50\%$ .

20. The ratio of the prices of three articles X, Y and Z is 8: 5 : 3. If the prices of X, Y, and Z are increased by 25%, 20%, and  $33 \frac{1}{3}\%$  respectively, then what would be the ratio of the new prices of X, Y, and Z?

- A. 5: 3: 1
- B. 5: 3: 2
- C. 10: 7: 4
- D. 10: 8: 5

**Answer - B.** 5: 3: 2





**Explanation:**

Let the prices of X, Y and Z be 8k, 5k, and 3k respectively.

After an increase

Price of X =  $8k \times \frac{125}{100} = 10k$

Price of Y =  $5k \times \frac{120}{100} = 6k$

Price of Z =  $3k \times \frac{133 \frac{1}{3}}{100} = 4k$

Required ratio = 10k: 6k: 4k = 5: 3: 2.

**21. Two varieties of wheat, M and N costing Rs. 9 per kg and Rs. 15 per kg were mixed in the ratio 3: 7. If 5 kg of the mixture is sold at 25% profit, find the profit made?**

- A. Rs. 13.50
- B. Rs. 14.50
- C. Rs. 15.50
- D. Rs. 16.50

**Answer - D. Rs. 16.50**

**Explanation:**

Let the quantities of M and N mixed be 3x kg and 7x kg.

Cost of 3x kg of M =  $9(3x) = \text{Rs. } 27x$

Cost of 7x kg of N =  $15(7x) = \text{Rs. } 105x$

Cost of 10x kg of the mixture =  $27x + 105x = \text{Rs. } 132x$

Cost of 5 kg of the mixture =  $\frac{132x}{10x} (5) = \text{Rs. } 66$

Profit made in selling 5 kg of the mixture =  $\frac{25}{100} (\text{cost of 5 kg of the mixture}) = \frac{25}{100} \times 66 = \text{Rs. } 16.50$

**22. A dairy man pays Rs.6.40 per liter of milk. He adds water and sells the mixture at Rs.8 per liter thereby making 37.5% profit. Find the ratio of the water to milk received by the customers?**

- A. 1: 10
- B. 1: 15
- C. 1: 20
- D. 1: 25

**Answer – A. 1: 10**

**Explanation:**

Let us assume that

milk will be x and water will be y liters

Required ratio of water and milk = y: x

Cost Price of x liters milk =  $\text{Rs. } 6.4x$

Selling Price of x liters milk=Rs.8(x+y)

$$64=8(x+y)*100/137.5$$

$$x: y=1: 10$$

**23. A tank containing 25 liters of a mixture of milk and water has 80% milk in it. How much quantity of the mixture be drawn out and replaced with water such that the new ratio of water to milk becomes 1: 3?**

- A. 1.5625 litres
- B. 4.725 litres
- C. 9.25 litres
- D. 10 litres

**Answer - A. 1.5625 litres**

**Explanation:**

$$\text{Milk} = (80/100)*25 = 20$$

$$\text{So water} = 5$$

$$\text{Hence, the ratio of water and milk is} = 5 : 20 = 1 : 4$$

Let us assume x litres drawn out

$$\text{So water left} = 5 - (1/(1+4))*x = 5 - x/5$$

$$\text{Milk left} = 20 - (4/(1+4))*x = 20 - 4x/5$$

Now x litres of water is added too

$$\text{So, water becomes} = 5 - x/5 + x = 5 + 4x/5$$

$$\text{So } [5 + 4x/5] / [20 - 4x/5] = 1/3$$

$$75x+12x = 100x-4x$$

$$16x = 25$$

$$x=25/16 = 1.5625$$

**24. A mixture of milk and water contains 25% water. 12 litres of this mixture is drawn out and replaced with 5 litres of water. If the new ratio of water to milk becomes 2 : 5, what is the amount of milk originally present in the mixture?**

- A. 75 liters
- B. 80 liters
- C. 82 liters
- D. 84 liters

**Answer - D. 84 liters**

**Explanation:**

Given that the mixture contains 25%

It seems the rest of the 75% is milk



Milk : Water = 75% : 25% = 3 : 1

Total =  $3x+x+12 = 4x+12$

So  $(x+5)/3x = 2/5$

By solving  $x = 25$

So total =  $4*25 + 12 = 112$  litres

Therefore, Originally milk =  $3/(3+1) * 112 = 84$  liters

**25. How much water must be added to a bucket which contains 40 liters of milk at the cost price of Rs.3.50 per liter so that the cost of milk reduces to Rs.2 per liter?**

- A. 25 liters
- B. 28 litres
- C. 30 liters
- D. 35 liters

**Answer - C. 30 liters**

**Explanation:**

By analyzing the given data

Total cost price =  $\text{Rs}(40 \times 7/2) = \text{Rs}.140$

Cost per liter =  $\text{Rs}.2$ ,

Total quantity =  $140/2 = 70$  Litres.

Water to be added =  $(70-40) = 30$  Litres.

**26. Manikanta lent out an amount Rs. 10000 into two parts, one at 8% per annum and the remaining at 10% per annum both on simple interest. At the end of the year, he received Rs. 890 as total interest. What was the amount he lent out at 8% per annum?**

- A. Rs. 6000
- B. Rs. 5500
- C. Rs. 4500
- D. Rs. 5000

**Answer - B. Rs. 5500**

**Explanation:**

Let the amount lent out at 8% p.a. be Rs. X

$\Rightarrow (X * 8)/100 + [(10000 - X) * 10]/100 = 890$

$\Rightarrow X = \text{Rs}. 5500.$

**27. A sum of Rs. 125000 amounts to Rs. 15500 in 4 years at the rate of simple interest. What is the rate of interest?**

# Honeywell Aptitude



- A. 3%
- B. 4%
- C. 5%
- D. 6%

**Answer - D. 6%**

**Explanation:**

Simple Interest =  $(15500 - 12500) = \text{Rs. } 3000$

Therefore, Rate of Interest =  $(100 * 3000) / (12500 * 4) = 6\%$

**28. The effective annual rate of interest corresponding to a nominal rate of 6% per annum payable half yearly is?**

- A. Rs 6.06%
- B. Rs 6.07%
- C. Rs 6.08%
- D. Rs 6.09%

**Answer - D. Rs 6.09%**

**Explanation:**

Let us assume that the sum be Rs 100.

Then  $P = \text{Rs } 100$ ,  $R = 3\%$

per half – year,  $t = 2$  half – years

Amount =  $\text{Rs } [100 \times (1 + 3/100)^2]$

=  $\text{Rs } (100 \times 103/100 \times 103/100)$

=  $\text{Rs } 10609/100$

=  $\text{Rs } 106.09$

Therefore, Effective Annual Rate = 6.09%

**29. The area of a square is equal to five times the area of a rectangle of dimensions 125 cm \* 64 cm. What is the perimeter of the square?**

- A. 600 cm
- B. 800 cm
- C. 900 cm
- D. 1000 cm

**Answer - B. 800 cm**

**Explanation:**

Area of the square =  $s * s = 5(125 * 64)$

$\Rightarrow s = 25 * 8 = 200 \text{ cm}$

Hence, Perimeter of the square =  $4 * 200 = 800 \text{ cm}$ .



30. Smallest side of a right-angled triangle is 6 cm less than the side of a square of perimeter 60 cm. Second largest side of the right-angled triangle is 4 cm less than the length of a rectangle of area 80 sq. cm and breadth 5 cm. What is the largest side of the right-angled triangle?

- A. 8 cm
- B. 9 cm
- C. 12 cm
- D. 15 cm

**Answer – D. 15cm**

**Explanation:**

Given that

Side of first square =  $60/4 = 15$  cm.

Smallest side of right angled triangle =  $15 - 6 = 9$  cm.

Length of second rectangle =  $80/5 = 16$  cm.

Second largest side of the 1st rectangle =  $16 - 4 = 12$  cm.

Therefore, Largest side = hypotenuse =  $\sqrt{9^2 + 12^2} = 15$  cm.