

Bank of Baroda Office Assistant Sample Questions

1. Selling price of an article is Rs. 5175 and discount of 25 percent is offered. What is the marked price of the article?

Answer:

Given:

Selling price = Rs. 5175, Discount = 25%

Formula Used:

Selling Price = Marked price (1 - Discount)

Solution:

Marked price = m

$m - 0.25m = 5175$

$0.75m = 5175$

$m = 5175 / 0.75$

2. R can do a piece of work in 45 days and S can do it in 30 days. If they work together for 15 days, then in how many days will S finish the work by R in 45 days?

Answer:

Given:

R can do a piece of work in 45 days

Formula:

Days

Solution:

R can do a piece of work in 45 days then in 45 days R can do 1 work because 45 days

days

So R can do 1 work in 45 days

3. A student scores 60% marks in a test. If he had scored 30% more marks, he would have scored 60% marks more than another student who scored 60% marks in the test. What is the maximum marks in the test?

Answer:

Given:

First student scores 60% marks

Solution:

Let the maximum marks be M

The first student scores 60% marks

The second student scores 60% marks more than the first student

$0.75M - 0.60M = 30$

$0.15M = 30$

$M = 30 / 0.15 = 200$

4. In one year the average monthly expenditure of Sapna was Rs. 1100 for the first 3 months of the year Rs. 1000 for the next 5 months and Rs. 1200 for the last 4 months. If the total annual saving was Rs. 1300 then what was Sapna's average monthly income?

Answer:

Given:

Average expenditures: Rs. 1100 (3 months), Rs. 1000 (5 months), Rs. 1200 (4 months), Savings:

Rs. 1300

Formula Used:

Average income = Total Expenditure + Savings / 12

Solution:

Total Expenditure = $1100 \times 3 + 1000 \times 5 + 1200 \times 4 = 13100$

Savings: 1300

Total Salary = $13100 + 1300 = 14400$

Monthly income = $14400/12 = 1200$

5. If the length of a rectangle is increased by 14.28 percent then by how much percentage its breadth should be reduced to keep the area same?

Answer:

Given:

Length

Form

% de

Solu

14.28

Length

Bread

Perce

$(8 - 7)/7$

6. Marked price of a shirt is Rs. 200. After giving a discount of 20 percent and a further discount of 10 percent, the shirt is sold for Rs. 144. What is the marked price of the shirt?

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7. A sum of money doubles itself in 10 years. In how many years will it become 4 times itself?

Answer:

Given:

Amount doubles in 10 years.

Formula Used:

Amount = Principal $\times \left(1 + \frac{\text{Rate}}{100}\right)^{\text{Time}}$

Solution:

$P(1+(R/100))^{10} = 2P$

$1+(R/100)^{10} = 2$

$(1+(R/100))^T = 4 = 2^2$

$2 \times 10 = 20\text{yrs}$

Alternate Method:

For compound interest doubling: $2^n = \text{Amount multiple}$

$$(1 + R/100)^{10} = 2$$

Doubling time to quadruple: $2 \times 10 = 20$ years

8. Find the value of $(7 + 33) \times (44 \div 2) \times (5 \times 5)$.

Answer:

Concept Used:

Priority wise Operation	Symbol/चिह्न
B-Bracket/कोष्ठक	$()$, $\{\}$, $[\]$
O-Of/का	Of/का
D-Divide/भाग	$\div$
M-Multiply/गुणा	$\times$
A-Addition/जोड़	$+$
S-Subtraction/घटाव	$-$

$$= (7 + 33)$$

$$= 40$$

9. Two trains are moving in opposite directions. The length of each train is 100 m. They cross each other in 10 seconds. Find the speed of each train.

Answer:

Given:

Length of each train = 100 m

Formula:

Relative speed = Total Distance / Time

Solution:

Let the speed of each train be x km/hr.

Then,

Total

Total

$$\text{So } 2x = 640/18$$

$$x = 64 \text{ km/hr.}$$

$$\therefore \text{Speed of each train} = 64 \text{ km/hr.}$$

10. Both A and B sell their watch at the rate of Rs. 5000 per watch. A earned a profit of 25 percent while B incurred a loss of 10 percent. What is the ratio of cost prices of A and B?

Answer:

Given:

Selling price for both = Rs. 5000,

A's profit = 25%,

B's loss = 10%

Formula Used:

$$CP = \frac{SP \times 100}{100 + \text{Gain \%}}$$
$$CP = \frac{SP \times 100}{100 - \text{Loss \%}}$$

Solution:

Cost price for A = $5000 \times 100/125 = 4000$

Cost price for B = $5000 \times 100/90 = 5555.56$

Ratio of both CP = $4000/5555.56 = 18 : 25$

11. What is the value of $[41 \times \{36 \times 4 \div (96 \times 2 \div 24)\}]$ **Answer:****Given:** $[41 \times$ **Conc****Pric**

B-B

O-O

D-D

M-M

A-A

S-St

$$[41 \times \{36 \times 4 \div (96 \times 2 \div 24)\}]$$
$$[41 \times \{36 \times 4 \div (96 \times \frac{1}{12})\}]$$
$$[41 \times \{36 \times 4 \div 8\}]$$
$$[41 \times \{36 \times \frac{1}{2}\}]$$
$$41 \times 18 = 738$$

12. Rs. 7200 is shared among three persons in the ratio of $1/2 : 4 : 3/2$. What is the share of the person who has $3/2$ part?**Answer:****Given:**

Total amount = Rs. 7200, Ratio = $1/2 : 4 : 3/2$

Formula Used:

Share of R = (R's ratio / Sum of ratios) $\times$ Total amount

Solution:

Total parts = $1/2 + 8/2 + 3/2 = 12 / 2 = 6$

$6 = 7200$

one part = Rs. $7200 / 6 = \text{Rs. } 1200$

R's share = $3/2$ parts

R's share in rupees = Rs. 1800

13. Evaluate: $\{(175 \times 72 \div 24 + 5) \times 20\} \div 2$

Answer:

Given:

$$\{(175 \times 72 \div 24 + 5) \times 20\} \div 2$$

Concept Used:

Priority wise Operation	Symbol/चिह्न
B-Bracket/कोष्ठक	$()$, $\{\}$, $[\]$
O-Of/का	Of/का
D-Division/विभाजन	$/$, $\div$
M-Multiplication/गुणन	$\times$, $\cdot$
A-Addition/जोड़	$+$
S-Subtraction/घटाना	$-$

$$= \{(175 \times 72 \div 24 + 5) \times 20\} \div 2$$

$$= \{175 \times 72 \div 24 + 5\} \times 20 \div 2$$

$$= (5300 + 5) \times 20 \div 2$$

14. In an examination, 75% of the students appeared and 75% of the students who appeared passed. If the number of students who failed is 75, find the number of students who appeared in the examination.

Answer:

Given:

Failed

Solution:

Let the number of students be x

75% of x = 75

$$75x = 75$$

$$x = 1$$

$$100x = 100$$

15. The rate of interest?

Answer:

Given:

Simple interest = $\frac{2}{5}$ of sum in 40 years

Formula Used:

$$\text{Simple Interest} = \frac{P \times R \times T}{100}$$

Solution:

Let the Principal amount be P

$$\frac{2}{5} P = \frac{40PR}{100}$$

$$R = 1\%$$

16. If $M:N = 9:6$ then what is the value of $(M + N):(M - N)$?

Answer:

Given:

$$M:N = 9:6$$

Solution:

$$\begin{aligned}(M + N):(M - N) \\ &= 9+6 : 9-6 \\ &= 15 : 3 = 5 : 1\end{aligned}$$

17. Rohit buys an old bat for Rs. 2320 and spends Rs. 180 on its repairing. If he sells it for Rs. 2400 then what is the loss percentage?

Answer:

Given:

Cost Price:

Formula:

$$\text{Loss \%} = \left(\frac{\text{Cost Price} - \text{Selling Price}}{\text{Cost Price}} \right) \times 100$$

Solution:

$$\text{Total Cost Price} = 2320 + 180 = 2500$$

Selling Price:

$$\text{Loss \%} = \left(\frac{2500 - 2400}{2500} \right) \times 100 = 4\%$$

18. The ages of seven persons are 15, 21, 27, 33, 39, 45, and 51. Find their average age?

Answer:

Given:

Ages:

Formula:

$$\text{Average} = \frac{\text{Sum of Ages}}{\text{Number of Persons}}$$

Solution:

$$\text{Average} = \frac{175}{7} = 25$$

19. There are 44 mangoes, 121 bananas, and 11 apples in several rows. Find the minimum number of rows such that each row contains the same number of fruits.

Answer:

Given:

44 mangoes, 121 bananas, 11 apples

Formula Used:

$$\text{Minimum number of rows} = \text{Sum of Total fruits} / \text{HCF of all fruits}$$

Solution:

$$\text{HCF of } 44, 121, 11 = 11.$$

Each row contains 11 fruits

$$\text{No. of mangoes row} = 4$$

$$\text{No. of apples row} = 1$$

$$\text{No. of bananas row} = 11$$

$$\text{Total row} = 4+1+11 = 16 \text{ rows}$$

20. What is the curved surface area of a cylinder having radius of base as 70 cm and height as 14 cm?

Answer:

Given:

Radius (r) = 70 cm

Height (h) = 14 cm

Formula Used:

Curved Surface Area (CSA) = $2\pi rh$

Solution:

Curved surface area = $2 \times \frac{22}{7} \times 70 \times 14 = 6160 \text{ cm}^2$

21. A trader marks his goods at 150% above the cost price. He gives a discount of 20% on the marked price. What is the profit percentage?

Answer:

Given:

Cost Price = 100

Marked Price = 250

Discount = 20%

Formula Used:

Profit = Selling Price - Cost Price

Solution:

Let the cost price be 100

Marked Price = 250

P. = 150%

% profit = ?

Thus

22. The radius of a sphere is increased by 50 percent. What will be the percentage increase in its volume?

Answer:

Given:

Initial radius = r

Increased radius = 1.5r

Formula Used:

Volume of sphere = $\frac{4}{3}\pi r^3$

Solution:

Let the radius be x

Vol. of sphere = $\frac{4}{3}\pi r^3$

ATQ

New radius = $\frac{50x}{100} + x = \frac{150x}{100} = 1.5r$

New vol. = $\frac{4}{3} \times \pi (1.5r)^3 = \frac{4}{3} \times \pi 3.375 \times r^3$

Change in Volume = $\frac{\frac{4}{3} \times \pi 3.375 \times r^3 - \frac{4}{3} \pi \times r^3}{\frac{4}{3} \times \pi \times r^3}$

Change in Volume = $\frac{3.375 - 1}{1} = 2.375$

23. 25 percent of 20 percent of a number is equal to 250. What is the 35 percent of that number?

Answer:

Given:

25% of 20% of a number = 250

Solution:

25 percent of 20 percent of a number $x = 250$

$$0.25(0.2)x = 250$$

$$0.05x = 250$$

$$x = 250/0.05$$

$$x = 5000$$

$$0.35x = 1750$$

24. Rs. 9000 is invested at 10% per annum compounded half yearly. Find the amount after 1 year.

Answer:

Given:

Principle = Rs. 9000

Rate = 10% per annum

Time = 1 year

Formula Used:

$A = P \left(1 + \frac{r}{n}\right)^{nt}$

Compound Interest = $A - P$

Solution:

Half yearly rate = $\frac{10\%}{2} = 5\%$

$A = 9000 \left(1 + \frac{5}{100}\right)^2$

$A = 9000 \times 1.1025$

$CI = 9000 \times 0.1025 = 922.50$

25. Rs. 8400 is divided among three persons in the ratio of 2/3 : 3/4 : 1/3. Find the share of the person who gets the least share.

Answer:

Given:

Total amount = Rs. 8400

Ratio = $\frac{2}{3} : \frac{3}{4} : \frac{1}{3}$

Formula Used:

Share = $\left(\frac{\text{Part}}{\text{Total Ratio}}\right) \times \text{Total Amount}$

Solution:

$\frac{2x}{3} + 3x + \frac{x}{3} = 8400$

$\Rightarrow \frac{2x + x + 9x}{3} = 8400$

$\Rightarrow 12x = 8400 \times 3$

$\Rightarrow x = 8400/4 = 2100$

$\Rightarrow \text{The share of R} = x/3 = 2100/3 = 700$

26. Swapnil can build a sofa in 16 days. Working together with Revathi he can finish the work in $128/17$ days. Find the number of days taken by Revathi to complete the work if she works alone.

Answer:

Given:

Time taken by Swapnil = 16 days

Combined time = $128/17$ days

Formula Used:

Work = Time $\times$ Rate

Solution:

Let Swapnil rate of work done be s and Revathi work rate be r .

Swapnil

So, to

Now

$$\frac{(s + r) \times 128}{17} = 16 \times s$$

$$r = \frac{16s \times 17}{128} - s$$

$$r = (1.125)s$$

So, p

$$r = 1.125 \times \frac{w}{16} \Rightarrow w = \frac{r \times 16}{1.125} = (14.22)r$$

As w

comp

Thus

27. The rate of interest on a sum of money for 5 years is $1/5$ of the sum. Find the annual rate of interest.

Ans

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$$2/5 \times P = (P \times R \times 5)/100$$

$$\Rightarrow R = 200/25$$

$$\therefore R = 8 \%$$

28. Find the maximum number of students among whom 1003 chocolates and 2703 candies can be distributed such that each student gets the same number of each.

Answer:

Given:

Number of chocolates = 1003

Number of candies = 2703

Formula Used:

HCF of the numbers

Solution:

$$\Rightarrow 1003 = 17 \times 59$$

$$\Rightarrow 2703 = 17 \times 159$$

H.C.F of

$$1003 \text{ and } 2703 = 17$$

29. If 45 percent of X is equal to 15 percent of Y, then what is the value of X : Y?

Answer:

Given:

$$45\% \text{ of } X = 15\% \text{ of } Y$$

Solution:

$$45\% \text{ of } x = 15\% \text{ of } y$$

$$45x/100 =$$

$$\Rightarrow x/y =$$

There

30. A train crosses another train in 30 seconds. If the length of the first train is 100 m and the speed of the second train is 40 km/h, find the speed of the first train.

Ans

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Length

Time

Form

Speed

Solu

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Total

Time

12 =

(x + 3

x = 3

31. The average of five numbers is 32. If one number is removed, then the average becomes 28. What is the removed number?

Answer:

Given:

$$\text{Average of 5 numbers} = 32$$

$$\text{Average of 4 numbers} = 28$$

Formula Used:

$$\text{Sum of numbers} = \text{Average} \times \text{Number of terms}$$

Solution:

$$\text{Sum of these numbers} = 32 \times 5 = 160$$

$$\text{Sum of these 4 numbers} = 28 \times 4 = 112$$

$$\text{Removed number} = 160 - 112 = 48$$

32. The marked price of an article is 60 percent more than its cost price. If 20 percent discount is given, then what will be the profit percentage?

Answer:

Given:

Marked Price (MP) = 160% of Cost Price (CP)

Discount = 20%

Formula Used:

Profit Percentage = (Selling Price - Cost Price) / Cost Price $\times$ 100

Solution:

Let the CP = Rs.100

MP = 100 + (60/100 $\times$ 100)

= Rs.160

Discount = 20%

= Rs.32

SP = MP - Discount

SP = 160 - 32

= Rs.128

Profit = SP - CP

= Rs.28

Profit % = (28/100) $\times$ 100

= 28%

33. If the cost price of an article is the same as the selling price of another article, then the profit/loss percentage is _____.

Answer:

Given:

Cost Price of one article = Selling Price of another article

Formula Used:

Profit Percentage = (Selling Price - Cost Price) / Cost Price $\times$ 100

Solution:

Let CP = 5x

SP = 6x

=> S.P. > C.P.

Let C.P. and S.P. be 5x and 6x respectively.

$$\text{Profit \%} = \frac{6x - 5x}{5x} \times 100$$

Profit % =

Profit % = x/5x $\times$ 100

Profit % = 20

34. What is the value of $(0.1)^2 + (0.01)^2$?

Answer:

Solution:

= $(0.1)^2 + (0.01)^2$

= 0.01 + 0.0001

= 0.0101

35. What will be the average of all the prime numbers before 32?

Answer:

Given:

Prime numbers before 32

Formula Used:

Average = (Sum of numbers) / (Number of terms)

Solution:

Prime numbers before 32 = 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31

Average = $(2 + 3 + 5 + 7 + 11 + 13 + 17 + 19 + 23 + 29 + 31) / 11 = 160 / 11 = 14.54$

36. Selling price of a table is Rs. 6875. If profit percentage is 25 percent, then what is the cost price?

Answer:

Given:

Selling

Profit

Form

SP =

Solu

6875

CP =

37. If 72 binders are used to bind 720 books in 22 days, how many binders are required to bind 660 books in 12 days?

Answer:

Given:

Number of binders = 72

Number of books (N) = 720

Number of days (D1) = 22

Number of binders (N2) = 660

Number

Form

Work

Solution:

work done for 1 book = (binders x days) / n.o of books = $(22 \times 72) / 720$

work done for 660 books in 12 days for (1 book work) = $(binders \times 12) / 660$

$(binders \times 12) / 660 = (22 \times 72) / 720$

binders = 121

38. The price of 3 notebooks and 6 pen is Rs. 3000. With the same money one can buy a notebook and 12 pen. Raju wants to buy 15 pen, how much will he have to pay?

Answer:

Given:

The Price of 3 Notebook + 6 Pen = Rs. 3000

The Price of one Notebook + 12 Pen = Rs. 3000

Solution:

Let notebook price be N and pen price be P.

$$3N + 6P = 3000$$

$$N + 12P = 3000$$

$$3(3000 - 12P) + 6P = 3000$$

$$9000 - 36P + 6P = 3000$$

$$9000 - 30P = 3000$$

$$-30P = 3000 - 9000$$

$$-30P = -6000$$

$$P = -6000/-30$$

$$P = 200$$

$$\text{Cost} = 615 \quad 15 \times 200 = 3000 \quad P = 2000$$

39. The ... What is the

Leas

Ansv

Give

Prod

HCF

Form

Prod

Solu

Prod

720

$\therefore$ LCM

