Percentage

Concept to discuss

1. Conversion of percentage to fraction and vice versa
2. X % of Y = Y% of X
3. Percentage change
4. Percentage Increase and decrease concept
5. Successive increase and decrease
6. Consumption and Expenditure
7. Examination , election and population

Percentage: Per means divided and cent means 100.

To convert any value on the base of hundred.

Conversion of percentage to fraction: To convert percentage to fraction, divide that percent value by 100.

E.G. 50% = 50/100 = ½
25% = 25/100 = ¼

Conversion of fraction to percentage: To convert fraction to percentage multiply the fraction by 100.

For e.g. 3/8 = (3/8)*100 = 37.5 %

$\frac{1}{2} = 50\%$			
$\frac{1}{3} = 33\frac{1}{3}\%$	$\frac{2}{3} = 66\frac{2}{3}\%$		
$\frac{1}{4} = 25\%$	$\frac{3}{4} = 75\%$		
$\frac{1}{5} = 20\%$	$\frac{2}{5} = 40\%$	$\frac{3}{5} = 60\%$	$\frac{4}{5} = 80\%$
$\frac{1}{6} = 16\frac{2}{3}\%$	$\frac{5}{6} = 83\frac{1}{3}\%$		
$\frac{1}{7} = 14\frac{2}{7}\%$	$\frac{2}{7} = 28\frac{4}{7}\%$	$\frac{3}{7} = 42\frac{6}{7}\%$	$\frac{4}{7} = 57\frac{1}{7}\%$
		$\frac{5}{7} = 71\frac{3}{7}\%$	$\frac{6}{7} = 85\frac{5}{7}\%$
$\frac{1}{8} = 12\frac{1}{2}\%$	$\frac{3}{8} = 37\frac{1}{2}\%$	$\frac{5}{8} = 62\frac{1}{2}\%$	$\frac{7}{8} = 87\frac{1}{2}\%$
$\frac{1}{9} = 11\frac{1}{9}\%$	$\frac{2}{9} = 22\frac{2}{9}\%$	$\frac{4}{9} = 44\frac{4}{9}\%$	$\frac{5}{9} = 55\frac{5}{9}\%$
		$\frac{7}{9} = 77\frac{7}{9}\%$	$\frac{8}{9} = 88\frac{8}{9}\%$
$\frac{1}{10} = 10\%$	$\frac{3}{10} = 30\%$	$\frac{7}{10} = 70\%$	$\frac{9}{10} = 90\%$
$\frac{1}{11} = 9\frac{1}{11}\%$	$\frac{2}{11} = 18\frac{2}{11}\%$	$\frac{3}{11} = 27\frac{3}{11}\%$	$\frac{4}{11} = 36\frac{4}{11}\%$
$\frac{1}{12} = 8\frac{1}{3}\%$			

Question : Find 55.55 % of 45.

Question : Find 45.45 % of 44

X % of Y = Y% of X

Question : Find 45% of 133.33

Answer : 45% of 133.33 = 133.33 % of 45

= (100+33.33)% of 45

= (1+1/3) * 45

= 4/3 * 45

= 60

Percentage Change

- 40 is what percent of 60?
- 60 is how much percent greater than 40?
- 40 is how much percent lesser than 60?

Question : If A’s salary is 20 % more than B, then by how much Percent B’s salary is less than A.

(a)20%

(b)25%

(c)16.66%

(d)30%

Question : If A’s marks in an exam is 40 % less than B then by how much % B’s marks are more than A.

(a)40 %

(b)60 %

(c)66.66 %

(d)20 %

Question : If 16(2/3) % of a number is added to itself the number becomes 700. Find original number.

(a)400

(b)600

(c)800

(d)700

Question: A student multiplied a number by 3/5 instead of 5/3

What is the percentage error in the calculation?

(a) 44%

(b) 64%

(c) 40%

(d) 60%

Question: The number was being multiplied by 5. By mistake it is divided by 5. Find percentage error in result.

(a) 94%

(b) 64%

(c) 400%

(d) 2400%

Successive Increase and Decrease

$$\text{Net change} = a + b + \frac{ab}{100}$$

For Increase = Take positive sign

For decrease = Take negative sign

Question : Price of petrol first increased by 20% and then it is decreased by 10% . Find the net change in the price.

(a)8 % increase

(b) 2 % decrease

(c) 10 % increase

(d) 8 % decrease

Question : Demand of a car went down by 25 % in 2016 and 20 % in 2017. What is net % decrease in demand?

(a) 45 %

(b) 40 %

(c) 50 %

(d) 60 %

Question : If the length of a rectangle is increased by 20 % and width is decreased by 30% then find the resultant change in area.

(a) 16 %

(b) 20 %

(c) 24 %

(d) 28 %

Question : A number is first increased by 15% and then decreased by 20%. The number so obtained is 64 less than the original number. What is the original number?

(a) 600

(b) 750

(c) 800

(d) 860

We know , **Expenditure = Price × Consumption**

Convert given % into fraction (a/n)

- If Increase $\frac{a}{n}$ ⟷ Decrease $\frac{a}{n+a}$

For this case if 1/5 increase ---------- 1/6 decrease

1/6 = 100/6 % = 16.66 %

- If Decrease $\frac{a}{n}$ ⟷ Increase $\frac{a}{n-a}$

For this case if 2/5 decrease ---------- 2/3 Increase

Question :If the price of petrol is raised by 20% then the percentage by which a car owner must reduce his consumption so that there is no change in expenditure.

(a) 16.66 %

(b) 18 %

(c) 15 %

(d) 25 %

Question :If the price of sugar is decreased by 12.5% then the percentage by which one household must increase his consumption so that there is no change in expenditure.

(a) 10 %

(b) 8 %

(c) 14.28 %

(d) 12.5 %

Question :If the price of commodity is decreased by 20% and its consumption increased by 20%, what will be the change in expenditure.

(a) 4 % increase

(b) 4 % decrease

(c) 8 % decrease

(d) 8 % increase

Question: If the price of sugar is increased by 25% then by how much percent consumption should be reduced so that the expenditure will increase by only 5%

(a) 25%

(b) 15%

(c) 16%

(d) 20%

Question :If the price of sugar is reduced by 20% due to which a person can buy 2kg more sugar for Rs. 200. Find the original price of sugar per kg.

(a) Rs. 25 per Kg

(b) Rs. 20 per Kg

(c) Rs. 22 per Kg

(d) Rs. 16 per Kg

Question: The price of sugar is increased by 30% due to this a housewife purchase 12 kg less sugar so that her expenditure will increase by 10% only. Find her original consumption.

(a) 70 kg

(b) 80 kg

(c) 75 kg

(d) 78 kg

Question : A student scored 140 Marks and still failed by 35 marks. If the passing criteria of that exam is 35%. Then find the maximum marks of that exam.

(a) 500

(b) 600

(c) 1000

(d) 700

Question : A student scored 25 % in an examination and still failed by 30 marks while another candidate scored 50% marks and get 20 marks more than the passing marks. Then find the passing percentage.

(a) 30 %

(b) 40 %

(c) 45 %

(d) 50 %

Question : A student scored 30 % in an examination and still failed by 12 marks while another candidate scored 40% marks and got 28 marks more than the passing marks. Then find the maximum marks in the examination.

(a) 300

(b) 400

(c) 500

(d) 700

Question: In an Exam, 52% candidates failed in English, 42% in mathematics and 17% in both. What was the number of percentage of passed students in both subjects?

(a) 23

(b) 77

(c) 6

(d) 94

Question: In an Exam, 70% candidates passed in English, 65% in mathematics and 27% failed in both. If 248 candidates was pass in both the subjects, then What was the total number of students?

(a) 300

(b) 400

(c) 500

(d) 600

Question : The population of a town is 50,000. It increases by 10% in the first year and 12% in the second year. What will be the population after 2 years.

(a) 55000

(b) 61600

(c) 72700

(d) 84600

Question : The current population of a town is 28,000.During the last 2 years the population increased at the rate of 16% and 20% per year. The population 2 years ago was (approximately)

(a) 24000

(b) 22000

(c) 20000

(d) 18000

Question : Raju invest 65% of his investment in a machine and 20% of his investment on raw material. If he has Rs. 6000 balance. Find the total money he had.

(a) 30000

(b) 40000

(c) 50000

(d) 60000

Question : Raju spend 40% of his salary on house rent. On the remaining 10% spend on travel. On remaining 16(2/3) % spend on food and remaining is saved . Find the money he spent on food.

(a) Rs. 450

(b) Rs. 400

(c) Rs. 500

(d) Rs. 600

Question: In a library 20% of the books are in Hindi, 50% of the remaining in English and 30% of the remaining are in French and rest 6300 books are in regional language. Then find the number of books in library.

(a) 20000

(b) 22500

(c) 35000

(d) 15000

Question: In an Election between two candidates one got 65% of the votes and won by 300 votes. Find total no. of votes.

(a) 1200

(b) 1500

(c) 1800

(d) 1000

Question : In a election of 2 candidate the candidate who gets 40% of the total votes rejected by 80 votes. Find total number of votes.

(a) 450

(b) 400

(c) 500

(d) 600

Question : In a election of 2 candidate 12 % of the voters did not cast their votes. The winner by getting 45% of the total votes, defeated his rival by 2000 votes. Find the total number of voters.

(a) 25000

(b) 50000

(c) 80000

(d) 100000

Question: In an Election, 10% persons didn't cast their votes and 10% found to be invalid. The winner got 54% of valid votes and won by 1620 votes. Find total number of votes?

(a) 12500

(b) 17500

(c) 25000

(d) 35000

Question: In an election two candidates participated. 20% voters did not cast their votes, out of which 600 votes declared invalid and the winner get 75% of valid votes and wins by 1500 votes. Find the number of total votes.

(a) 3600

(b) 3000

(c) 4000

(d) 4500


return
Thank You!

Profit and Loss

Cost Price: The price, at which an article is purchased, is called its ***cost price****, abbreviated as* ***C.P.***

Selling Price: The price, at which an article is sold, is called its ***selling price****, abbreviated as* ***S.P.***

Profit or Gain: If S.P. is greater than C.P., the seller is said to have a ***profit or gain****.*

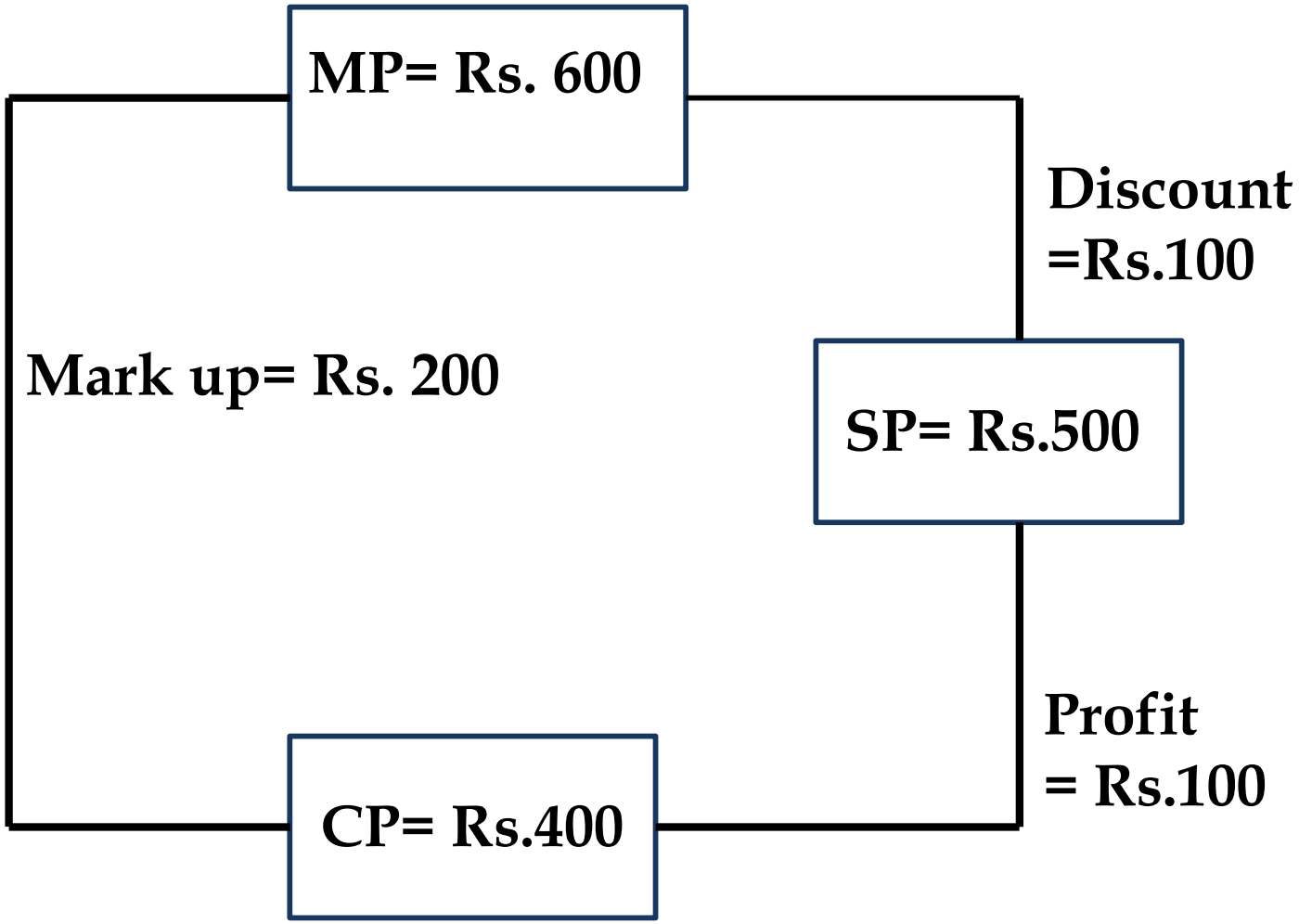
Loss: If S.P. is less than C.P., then the seller is said to have incurred a *loss.*

$$\text{Profit} = \text{selling price} - \text{cost price}$$

$$\text{Percentage Profit (\%)} = \frac{\text{profit}}{\text{cost price}} \times 100$$

$$\text{Loss} = \text{cost price} - \text{selling price}$$

$$\text{Percentage Loss (\%)} = \frac{\text{loss}}{\text{cost price}} \times 100$$



A shopkeeper buys a T-shirt from whole sale market at Rs.400 and marked that article Rs.200 above the CP. After giving a discount of Rs.100 he sold it at Rs.500.

In the previous situation:

Profit= Rs.100, Profit/Loss is always calculated on CP. So, %P= ?

Markup= Rs.200, M is always calculated on CP. So, %M= ?

Discount = Rs.100, Discount is always calculated on MP. So, %D= ?

Relationship between Markup, Discount and Profit or Loss

$$P\% \text{ or } L\% = M - D - \frac{MD}{100}$$

$$S.P. = \frac{(100+Gain\%)}{100} \times C.P.$$

$$S.P. = \frac{(100-Loss\%)}{100} \times C.P.$$

$$C.P. = \frac{100}{(100+Gain\%)} \times S.P.$$

$$C.P. = \frac{100}{(100-Loss\%)} \times S.P.$$

If an article is sold at a gain of say. 35%. then S.P. = 135% of C.P.
If an article is sold at a loss of say. 35%. then S.P. = 65% of C.P.

When a person sells two similar items, one at a gain of say, $x\%$, and the other at a loss of $x\%$, then the seller always incurs a loss given by:

$$\text{Loss}\% = \left(\frac{\text{Common Loss and Gain}\%}{10}\right)^2 = \left(\frac{x}{10}\right)^2$$

If a trader professes to sell his goods at a cost price, but uses false weights, then

$$\text{Gain}\% = \left[\frac{\text{Error}}{(\text{True Value}) - (\text{Error})} \times 100\right]\%$$

Questions: A TV is purchased at Rs. 5000 and sold at Rs. 4000, find the lost percent.

[A] 10%

[B] 20%

[C] 25%

[D] 28%

CP = Rs.500
P = 20 %
SP = ?

CP = Rs.800
L = 30 %
SP = ?

SP = Rs.720
P = 20 %
CP = ?

SP = Rs. 810
L = 10 %
CP = ?

Questions: When a plot is sold for Rs. 18,700, the owner loses 15%. At what price must that plot be sold in order to gain 15%?

[A] Rs.21000

[B] Rs.22500

[C] Rs.25300

[D] Rs.25800

Questions: Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is

[A] 6/19%

[B] 6/11%

[C] 60/11%

[D] 38/11%

Question: If CP of 25 articles is equal to SP of 20 articles. Find the profit or loss percent.

[A] 25% loss

[B] 25% profit

[C] 20 % profit

[D] 20 % loss

Question: If CP of 30 articles is equal to SP of 45 articles. Find the profit or loss percent.

[A] 33.33 % loss

[B] 33.33 profit

[C] 20 % loss

[D] 20 % profit

Question: By selling 12 articles a man earn a loss of which is equal to selling price of 4 articles. Find his loss percent.

[A] 20 %

[B] 25%

[C] 33.33%

[D] 16.66 %

Question: By selling 66m cloths a man earn a profit of equal to selling price of 6m cloths. Find his profit percent.

[A] 20 %

[B] 25 %

[C] 10%

[D] 33.33%

Question: By selling 40 articles a man earn a profit of equal to cost price of 5 articles. Find his loss or profit percent.

[A] 33.33 % profit

[B] 12.5 % loss

[C] 25 % loss

[D] 12.5 % profit

Question: A shopkeeper buy some number of article at the rate of 11 articles for Rs.10 and sold all of them at the rate of 10 articles for Rs.11. Find his profit or loss percent.

[A] 20 % profit

[B] 21% profit

[C] 25 % loss

[D] 21 % loss

Question: A shopkeeper buy some number of article at the rate of 12 articles for Rs.15 and sold all of them at the rate of 10 articles for Rs.14. Find his profit or loss percent.

[A] 20 % loss

[B] 33.33 % profit

[C] 12 % profit

[D] 12.5 % loss

Question: A Shopkeeper buy some lemons at rate of 2 for Rs.1. Again he bought the some number of lemons at rate of 1 for Rs.2. He mixed both the types and sold at 3 for Rs.3. find profit / loss %.

[A] 20 % loss

[B] 25 % loss

[C] 20 % profit

[D] 25 % profit

Question: A shopkeeper purchase some number of article for Rs.8400. He sold $3/5^{th}$ of them at 15 % profit each. At what percent profit should he sell the remaining to gain overall 20 % profit.

[A] 26%

[B] 27%

[C] 27.5%

[D] None

Question: A shopkeeper purchase some number of article for Rs.5520. He sold $5/7^{th}$ of them at 14 % profit each. At what percent profit should he sell the remaining to gain overall 18 % profit.

[A] 20%

[B] 25%

[C] 33.33%

[D] 28%

Question: A shopkeeper purchase some number of article for Rs.4500. He sold $1/3^{rd}$ of them at 10 % loss each. At what percent profit should he sell the remaining to gain overall 20 % profit.

[A] 30%

[B] 25%

[C] 35%

[D] None

Question: A shopkeeper professes to sell his goods at its CP, But he uses 950 gm. In place of 1 kg. Find his profit percent.

[A] 12.5 %

[B] 25%

[C] 5.26%

[D] 4%

Question: A shopkeeper professes to sell his goods at its CP, But he uses 800 gm. In place of 1 kg. Find his profit percent.

[A] 25%

[B] 20%

[C] 33.33%

[D] 40%

Question: A shopkeeper professes to sell his goods at 10% profit, But he uses 20% less weight. Find his total profit percent.

[A] 37.5%

[B] 45%

[C] 25%

[D] 20%

Question: A shopkeeper professes to sell his goods at 44% loss, But he uses 30% less weight. Find his profit or loss percent.

[A] 20% profit

[B] 25% profit

[C] 25% loss

[D] 20% loss

Question: A shopkeeper selling his goods at 7% loss. Had he sold it for Rs.800 more then he would get 9% profit. Find the CP of that article.

[A] 500

[B] 6000

[C] 5000

[D] 4500

Question: A shopkeeper selling his goods at 20% profit. Had he purchase it 10% less and sold it for Rs.18 less then he would get 30% profit. Find the initial CP of that article.

[A] 540

[B] 600

[C] 1200

[D] 720

Question: A shopkeeper selling his goods at 10% profit. Had he purchase it 20% less and sold it for Rs.20 more then he would get 40% profit. Find the initial SP of that article.

[A] 1000

[B] 2000

[C] 1100

[D] 720

Question: A shopkeeper sold an article at 25% profit. If the CP and SP are decreased by Rs.20 and Rs.40 respectively then the profit percent would be decreased by 15 %. Find CP of the articles.

[A] 120

[B] 200

[C] 180

[D] 240

Question: A man purchase some number of articles at the rate of 11 articles for Rs.1. How many articles should he sell for Rs.1 to gain 10% profit.

[A] 11

[B] 10

[C] 12

[D] 14

Question: A man purchase 25 articles for Rs.1. How many articles should he sell for Rs.1 to gain 25% profit.

[A] 21

[B] 28

[C] 20

[D] None

Question: By selling 32 articles for Rs.1 a man earn loss of 40 %. How many articles should he sell for Rs.1 to gain 20% profit.

[A] 16

[B] 17

[C] 18

[D] 19

Question: By selling 45 articles for Rs.40 a man earn loss of 20 %. How many articles should he sell for Rs.24 to gain 20% profit.

[A] 20

[B] 27

[C] 18

[D] None

Question: A shopkeeper purchase 2 articles for Rs.9600. He sold the first article at 20% loss and second article at 60% profit then he find that both the articles being sold on the same price. Find the CP of first article.

[A] 6400

[B] 3200

[C] 6000

[D] 5400

Question: A shopkeeper sells 2 articles. He sold the first article at 15% loss and second article at 19% profit. During the whole transaction he earn a loss of Rs90. Find the CP of second article if the SP of both articles are same.

[A] 5000

[B] 4500

[C] 2000

[D] None

Question: A shopkeeper sells 3 articles. He sold the first article at 20% profit, second article at 10% loss and third at 25% loss. During the whole transaction he earn a loss of Rs60. Find the SP of first article if the SP of all the articles are same.

[A] 216

[B] 180

[C] 240

[D] None

Problems on Discount:

Questions: A bag marked at Rs80 is sold for Rs68. The rate of discount is:

[A] 20%

[B] 15%

[C] 17 (11/17)%

[D] 12%

Questions: An item was sold at a price after giving two successive discount of 30% and 50 %. If the selling price of the item was Rs 448, then what was the marked price of the item?

[A] 840

[B] 1280

[C] 1140

[D] 1640

Questions: If after giving a discount of 12%, a profit of 10% was made on an article, then by what % was the price marked up?

[A] 20%

[B] 25%

[C] 32.5%

[D] 35%

Questions: The cost price of a table is Rs 330. It is sold for a profit of Rs 30 after giving 10% discount find its marked price

[A] Rs.400

[B] Rs.380

[C] Rs.420

[D] None

Questions: A sold a table to B at a profit of 15%. Later on, B sold it back to A at a profit of 20%, thereby gaining Rs. 69. How much did A pay for the table originally?

[A] Rs.300

[B] Rs.320

[C] Rs.345

[D] Rs.350

Question: Buy 5 articles get 3 articles free. Find discount percent.

[A] 33.33%

[B] 12.5%

[C] 37.5%

[D] 60%

Question: Buy 2 articles get 1 article free. Find discount percent.

[A] 50%

[B] 33.33%

[C] 20%

[D] 25%

Question: A retailer purchase 70 pens at the mark price of 56 pens and sell them to a customer at their MP. Find the profit percent of shopkeeper.

[A] 25%

[B] 20%

[C] 33.33%

[D] 16.66%

Question: A retailer purchase 40 pens at the mark price of 36 pens and sell them at a discount of 1 %. Find the profit percent of shopkeeper.

[A] 20%

[B] 15%

[C] 10%

[D] None

Question: By how much percent a shopkeeper should mark his goods above its CP so that he will gain 10% profit after giving 30% discount.

[A] 200/7%

[B] 400/7%

[C] 100%

[D] None

Question: By how much percent a shopkeeper should mark his goods above its CP so that he will gain 10% profit after giving 10% discount.

[A] 200/9 %

[B] 110/9 %

[C] 100/9 %

[D] None

Question: A shopkeeper gives 10% discount on an article and earn 20% profit then find his profit percent if he will give 20% discount on the same article.

[A] 16.66%

[B] 5.66%

[C] 6.66%

[D] None

Question: After giving 20% discount a shopkeeper earn 30% profit then find his profit percent if he will give 25% discount on the same article.

Question: A shopkeeper give 1 article free of every purchase of 15 article and also gives a discount of 4 % and after all that his profit percent is 35%. Find CP:MP.

[A] 3:2

[B] 4:5

[C] 3:4

[D] 2:3

Question: A shopkeeper give 4 articles free of every purchase of 12 articles and also gives a discount of 20 % and after all that his profit percent is 20%. Find CP:MP.

[A] 1:2

[B] 2:1

[C] 5:7

[D] 3:2


return
Thank You!

Simple Interest and Compound Interest

Principal

The money borrowed or lent out for a certain period is called the principal or the sum.

Interest

Extra money paid for using other's money is called **interest.**

Simple Interest

If the interest on a sum borrowed for certain period is reckoned uniformly, then it is called **simple interest.**

If P= Rs.1000, R=10% p.a. T=3 years. Find Simple Interest for 3 years.

Let Principal = P, Rate = R% per annum (p.a.) and Time = T years. Then

Simple Interest =(P x R x T)/100

Question: Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?

[A] 3.6

[B] 6

[C] 18

[D] Can not be determined

Question: A man took loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 5400 interest only for the period. The principal amount borrowed by him was:

[A] Rs.2000

[B] Rs.10000

[C] Rs.15000

[D] Rs.20000

Question: How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?

[A] 3.5 years

[B] 4 years

[C] 4.5 years

[D] 5 years

Question: The interest for the 3rd year on a certain sum at a certain rate of simple interest is Rs.3000. find the sum of the interests accrued on it in the 6th, 7th and 8th years.

[A] Rs.6000

[B] Rs.9000

[C] Rs.4500

[D] Rs.12000

Question: A sum was invest for 2 years. It will give Rs. 300 more, if invested at 3% higher rate. Find the sum.

[A] Rs.4000

[B] Rs.5000

[C] Rs.6000

[D] Rs.10000

Question: A sum amounts to Rs.1008 in 2 years and amounts to Rs.1112 in 3 years at SI. Find the sum and rate of interest per annum.

[A] Rs.800, 13% pa

[B] Rs.600, 12 % pa

[C] Rs.800, 12% pa

[D] Rs.600, 13% pa

Question: S.I. On Rs 400 for 5 years together with that on Rs. 600, for 4 year to Rs. 132. If the Rate is same in both the case. Find rate % of interest?

[A] 2% pa

[B] 3% pa

[C] 5% pa

[D] 8% pa

Question: A shopkeeper borrow Rs. 20,000 from two money lenders. For one loan, he paid 12% pa and for other 14% pa. After one year he paid Rs. 2560 as total interest. How much did he borrow each?

[A] Rs.8000, Rs.12000

[B] Rs.12000, Rs.8000

[C] Rs.6000, Rs.14000

[D] Rs.14000, Rs.6000

Question: Rs. 1500 is invested in two such parts that if one part be invested at 6% and other at 5%, S.I= Rs. 85 for one year. Then how much was invested at 5%?

[A] Rs.1000

[B] Rs.500

[C] Rs.600

[D] Rs.800

Question: Rs. 8400 is invested in two such parts that if one part be invested at 8% and remaining at $\mathbf{6\frac{2}{3}}$ % pa, his total interest after one and half year was Rs. 882. Then how much invested at different rates?

[A] Rs.6300, Rs.2100

[B] Rs.6000, Rs.2400

[C] Rs.2400, Rs.6000

[D] Rs.2100, Rs.6300

Question: If a sum of money at simple interest doubles in 6 years, it will become 4 times in:

[A] 12 years

[B] 14 years

[C] 16 years

[D] 18 years

Question: If a sum of money at simple interest doubles in 8 years, it will become 4 times in:

[A] 16 years

[B] 24 years

[C] 64 years

[D] 32 years

Question: Find the present value (in Rs.) of Rs.3000 due after 5 years at 10% p.a. simple interest.

[A] Rs.1500

[B] Rs.1800

[C] Rs.2000

[D] Rs.2500

Question: A sum was put at simple interest at a certain rate for 3 years. Had it been put at 2% higher rate, it would have fetched Rs 360 more. Find the sum.

A) Rs.4000

B) Rs.9000

C) Rs.5000

D) Rs.6000

Question: A Certain sum of money an amounts to Rs 2500 in a span Of 5 years and further to Rs.3000 in a span of 7 years at simple interest The sum is ?

A) Rs. 1800

B) Rs. 2000

C) Rs. 1400

D) Rs. 1250

Question: The difference between the simple interest received from two different sources on Rs.1500 for 3 years is Rs.13.50. The difference between their rates of interest is

A) 0.1%

B) 0.2%

C) 0.3%

D) 0.4%

Compound interest

If P= Rs.1000, R=10% p.a. T=3 years. Find Compound Interest for 3 years.

Compound Interest:

Compound interest is the interest earned not only on the original principal, but also on all interests earned previously

Let Principal = P, Rate = R% per annum, Time = *n* years.

1. When interest is compounded Annually:
Amount= P(1+R/100)^n

2. When interest is compounded Half-yearly:
Amount=P[1+(R/2)/100]^2n

3. **When interest is compounded Quarterly:**
Amount=P[1+(R/4)/100]^4n

$$C.I - S.I \text{ for } 2 \text{ years} = P\left(\frac{R}{100}\right)^2$$

$$C.I - S.I \text{ for } 3 \text{ years} = P\left(\frac{R}{100}\right)^2\left(\frac{R}{100} + 3\right)$$

Question: Find the compound interest earned on Rs.20000 for 2 years at 10% p.a. the interest being compounded annually.

[A] Rs.2100

[B] Rs.4200

[C] Rs.6300

[D] Rs.5600

Question: Find the interest earned in the first year on Rs.400 at 20%p.a. compound interest, the interest being compounded half yearly.

[A] Rs.42

[B] Rs.72

[C] Rs.84

[D] Rs.144

Question: Find CI. If P= Rs. 10000, r = 10 % p.a. and T= 1 year and 73 days.

[A] Rs.2220

[B] Rs.3200

[C] Rs.2120

[D] Rs.1220

Question: Find CI. If P= Rs. 10000, r = 10 % p.a. and T= $\mathbf{2\frac{3}{5}}$ year.

[A] Rs.2226

[B] Rs.826

[C] Rs.2628

[D] Rs.2826

Question: Find C.I. on Rs. 8000, 20% P.A. For 9 month compounded quarterly.

[A] Rs.262

[B] Rs.1261

[C] Rs.9261

[D] Rs.831

Question: If Rs.2000 amounts to Rs.2880 in 2 years at compound interest, what is the rate of interest per annum if the interest is being compounded annually?

[A] 10%

[B] 20%

[C] 15%

[D] 25%

Question: What will be the difference between the S.I and C.I. On Rs. 600 for one year at 10% P.A, if compounded half yearly.

[A] Rs.1.5

[B] Rs.15

[C] Rs.3.5

[D] Rs.35

Question: A sum of money lent at C.I. For two years at 20% pa give Rs. 723 more if the interest was half year in place of annually. The sum is.

[A] 30000

[B] 60000

[C] 40000

[D] 20000

Question: If the S.I of certain money for 3 years is Rs. 225 & C.I on same money, same rate for 2 years is Rs. 153. then what was the principal amount?

[A] Rs.875

[B] Rs.1875

[C] Rs.785

[D] Rs.1785

Question: If the difference between S.I and C.I at 4% P.A for 2 years is 20 Rs. What will be the value of principle amount?

[A] Rs.50000

[B] Rs.12000

[C] Rs.12500

[D] Rs.25000

Question: The difference between C.I and S.I at the some rate for Rs. 5000 for 2 years is Rs. 72. what is the rate of interest per annum?

[A] 6% pa

[B] 10% pa

[C] 12% pa

[D] 15% pa

Question: Divide Rs. 6100 between A & B, so that A's share at the end of 3 year = B's share at end of 5 year. C.I. Rate =20% pa.

[A] 3600, 2500

[B] 2000, 4100

[C] 2500, 3600

[D] 4100, 2000

Question: A sum doubles in 8 years at compound interest. In how many years will the sum become 4 times the original sum if the interest is compounded annually?

[A] 16 years

[B] 24 years

[C] 64 years

[D] 32 years

Question: A sum of money under compound interest doubles itself in 4 years. In how many years will it become 16 times itself?

[A] 12 years

[B] 16 years

[C] 8 years

[D] None of these

Question: The difference between the compound interest and simple interest on a certain sum at 12% per annum for 2 years is Rs.126.72. Find the sum.

[A] Rs.8000

[B] Rs.8800

[C] Rs.10200

[D] Rs.12400

Q. The simple interest on a sum of money for 2 years is Rs. 150 and the compound interest on the same sum at same rate for 2 years is Rs. 155. The rate % p.a. is

a) 16 %

b) 20/3 %

c) 12 %

d) 10 %

Q. If the simple interest on a sum of money at 5% per annum for 3 years is Rs. 1200, find the compound interest on the same sum for the same period at the same rate.

A) 1261

B) 1271

C) 1281

D) 1291

Q. If the compound interest on a certain sum at 16(2/3)% to 3 years is Rs.1270, find the simple interest on the same sum at the same rate and f or the same period.

A) 1080

B) 1090

C) 1180

D) 1109

Q. Rs. 5887 is divided between Shyam and Ram, such that Shyam's share at the end of 9 years is equal to Ram's share at the end of 11 years, compounded annually at the rate of 5%. Find the share of Shyam.

A) 3567

B) 3452

C) 3087

D) 3544


return
Thank You!