

- Express the following fractions as a percentage.  
a)  $\frac{3}{4}$                       b)  $\frac{9}{200}$                       c)  $\frac{3}{5}$                       d)  $\frac{31}{40}$
- Express the following percentages as fractions and decimals.  
a) 88 %                      b) 52 %                      c)  $65\frac{1}{5}\%$                       d)  $72\frac{3}{4}\%$
- Express the following ratios as percentages.  
a) 5:8                      b) 7:8                      c) 21:25                      d) 5:16
- Express the following percentages as ratios.  
a) 150 %                      b) 25.5 %                      c)  $33\frac{1}{3}\%$                       d)  $11\frac{2}{3}\%$
- There are 1200 students in a school. If 780 of them are girls, what is the percentage of boys in the school?
- In a month a man spends 20% of his income on rent, 40% on food, 15% on education, 5% on charity and 8% on entertainment. The rest of the money he saves. If his saving in a month is 3600, what is his total income?
- Gun powder contains 75% nitre, 15% charcoal and the rest sulphur. Find the amount of sulphur in 9 kg of gun powder.
- Mr Hari spends 66% of his salary on his family, 20% of the remaining he gives to a trust for charity and is left with Rs. 12240. What is the total salary of Mr Hari and how much amount does he give to the trust?
- A man invested a sum of money in four companies A, B, C and D. He invested 32% of his money in company A, 30% in company B, 10% in company C and the rest in company D. If his investment in company D was Rs. 2,10,000, then find:
  - The total money invested by the man
  - Investment in company A
  - Investment in company C
- In an election 55,000 votes are cast. Out of them 0.5% votes were declared invalid. The winning candidate scored 56% of the total valid votes. How many votes did the winning candidate get?

1. The price of petrol decreased from Rs. 77.50 by 4.8% what is the reduced price of petrol?
2. A company has 450 employees. It needs to hire 18% more employees, how many more employees will it hire?
3. The price of a note book is Rs.15. A shopkeeper is selling the notebook for Rs.12. What is the decrease percentage on the price of the notebook?
4. Mr Mehra pays a rent of Rs.25,000 per month for an apartment. The landlord increased the rent by 9.5%, By how much has the rent increased?
5. The daily wages of a labourer increased from Rs.240 to Rs.288. What was the percentage increase in the salary?
6. By installing a solar energy device, Rahul's electricity bill reduced from Rs.9,000 every month to Rs.7,800 a month. What was the percentage decrease in the bill amount?
7. A car dealer raised the price of a car from Rs.7,50,000 to Rs.8,32,500. What was the percentage of change?
8. The value of an automobile depreciates by 18.5% every year. If a new car costs Rs.5,65,000 then what will be the price of the car after a year.
9. The population of a city increased from 3,70,800 in 2010 to 3,89,340 in 2011
  - a) Find the percentage increase in the population in one year.
  - b) If the population continues to increase at the same rate, what will be the population in 2012?
10. A number is increased by 40% and then decreased by 40%. Find the net increase or decrease per cent.

1. Complete the table given below.

	Marked Price	Selling Price	Discount	Discount %
a)	600	510		
b)		18000		10%
c)	1500			12%
d)		2100	700	

2. A toy was sold at Rs.546 after giving a discount of Rs.104.
- What was the marked price of the toy?
  - What was the discount percent?
3. The marked price of a ceiling fan was Rs.7200. In the winter season a dealer offers a discount of 12% on the fan. What is the selling price of the fan?
4. Anila bought a mixer at Rs.5640 after getting a discount of 6% on the marked price. What was the marked price of the mixer?
5. A dealer purchased a refrigerator from a wholesaler at Rs.25,500. After offering a discount of 20% on its marked price, the dealer gains 20%. Find
- The selling price of the refrigerator
  - The marked price of the refrigerator.
6. A vendor marks his goods 24% above the cost price and allows a discount of 25%. What s his gain or loss percent?
7. The cost of a electric kettle is Rs.7440, A sales tax of 8% is levied on it. What is the amount that the customer has to pay for the kettle?
8. The cost of a jewellery set inclusive of sales tax is Rs.28655. If the original cost of the set was Rs.26050, find the rate of sales tax.
9. Kavita goes for shopping with her friends to a shopping mall. The table below shows the items she buys and the sales tax levied on them. Calculate the price she had to pay for each item. Also find the total amount paid by Kavita for all the items

	Item Bought	Marked Price	Sales Tax	Amount Paid
e)	Tissues	Rs. 60	7%	
f)	Medicines	Rs. 745	5%	
g)	Stationary	Rs. 850	17%	
h)	Toys	Rs. 452	20%	

10. At what percent above the cost price should a dealer mark a computer so that after allowing a discount of 5%, he still is able to make a profit of 23.5%.
11. The marked price of a cupboard is Rs.12000. What amount will the customer pay if the rate of VAT is 10%?
12. Hari paid a sales tax of Rs.340 on purchase of books worth Rs. 2000. Calculate the rate of sales tax.
13. Dhruv had dinner with his friends at a restaurant and got a bill of 2,800 exclusive of VAT. If he paid a VAT amount of Rs.308, calculate the rate of VAT.

- Fill in the blanks.
  - Discount is always calculated on \_\_\_\_\_
  - Profit % or loss% is always calculated on \_\_\_\_\_
  - The difference between the marked price and the selling price is called the \_\_\_\_ .
  - If selling price is greater than the cost price, then there is \_\_\_\_\_ in the transaction.
  - If selling price is lesser than the cost price, then there is \_\_\_\_ in the transaction.
- Express the following as percentage.
  - $\frac{11}{25}$
  - 14 : 70
  - 0.087
  - 2.45
  - $4\frac{3}{4}$
- A retailer buys goods for Rs. 10,000. He offers a discount of 10% on the marked price of the goods and still manages a profit Of 8%. What was the marked price of the goods?
- A dealer sells a washing machine for Rs. 20,570 and gains 10%. Find the cost price of the washing machine.
- Seema purchased bangles marked at Rs.30,800 at a discount of 10%. Find the amount Seema has to pay if there is a sales tax of 5% on the selling price.
- The marked price of a bread toaster is Rs.1350 and the VAT on it is 108. Find the rate of VAT.

1. A man purchased a television set for Rs. 25,000 and sold it for Rs. 22,000. Find his loss and loss %?
2. A vendor brought a basket of 30 dozen bananas for Rs. 270. Six dozen bananas were rotten. He sold the remaining bananas at Rs. 1.25 each. What was his profit or loss?
3. The selling price of 12 oranges is the same as the cost price of 15 oranges. Find the profit or loss percent.
4. Hanif purchased a scooter for Rs. 12,500. He spent Rs. 1,200 on painting the scooter and Rs. 550 on Polishing. He then sold the scooter for Rs. 16,530. Find the profit and the profit % in the whole transaction.
5. A shopkeeper buys a packet of wafers at Rs. 64 per packet. He spends Rs. 4 on transport of 4 packets, At what price should he sell the packet to gain 16%.
6. Mahesh sold two cell phones at Rs. 9900 each. On one he gained 10% and on the other he lost 10%. Find
  - a) the cost price of each cell phone.
  - b) the total profit or loss in the whole transaction.
  - c) his total profit or loss %.
7. Sandesh sold 15 kg apples for Rs. 2100 and made a profit of 12.5%. At what price per kg should he sell to gain 15%?
8. A dealer sold a watch at a profit of 12%. If he had sold it for Rs. 288 more, he would have made a profit of 18%. Find the cost price of the watch.
9. A sold an article to B at a loss of 20% and B sold it to C at a gain of 20%. If C paid Rs. 6000 for the article, find the cost price of the article for A.
10. If a man makes a profit of 10% by selling a bicycle for Rs. 4400, at what price should he sell it to make a profit of 16%?