

MATHEMATICS

STEP UP



SECTION - 1

Commercial Arithmetic

1. Value Added Tax
2. Banking
3. Shares and Dividend

Submission Date : / /

Commercial Arithmetic Assignment Sheet

2003

1. The price of a washing machine, inclusive of sales tax is ₹ 13,530. If the sales tax is 10%, find its basic price.
2. A man invests ₹ 20,020 in buying shares of nominal value ₹ 26 at 10% premium. The dividend on the shares is 15% per annum. Calculate:
 - (i) The number of shares he buys.
 - (ii) The dividend he receives annually.
 - (iii) The rate of interest he gets on his money.

2004

1. Ms. Chawla goes to a shop to buy a leather coat which costs ₹ 735. The rate of sales tax is 5%. She tells the shop keeper to reduce the price of the coat, such that she has to pay only ₹ 735 inclusive of sales tax. Find the reduction needed in the price of the coat.
2. A man invested ₹ 45,000 in 15% ₹ 100 shares quoted at ₹ 125. When the market value of these shares rose to ₹ 140, he sold some shares, just enough to raise ₹ 8,400. Calculate :
 - (i) The number of shares he still holds.
 - (ii) The dividend due to him on these remaining shares.

2005

1. Mr. R. K. Nair gets ₹ 6,455 at the end of one year at the rate of 14% per annum in a recurring deposit account. Find the monthly instalment.
2. The catalogue price of a computer set is ₹ 45,000. The shopkeepers gives a discount of 7% on the listed price. He gives a further off-season discount of 4% on the balance. However, sales tax at 8% is charged on the remaining amount.
Find :
 - (i) The amount of sales tax a customer has to pay,
 - (ii) The final price he has to pay for the computer set.
3. Mr. Tiwari invested ₹ 29,040 in 15% Rs. 100 shares quoted at a premium of 20%. Calculate :
 - (i) The number of shares bought by Mr. Tiwari.
 - (ii) Mr. Tiwari's income from the investment.
 - (iii) The percentage return on his investment

2006

1. Kiran purchases an article for ₹ 5,400 which includes 10% rebate on the marked price and 20% sales tax on the remaining price. Find the marked price of the article.
2. Mohan deposits ₹ 80 per month in a cumulative deposit account for six years. Find the amount payable to him on maturity, if the rate of interest is 6% per annum.
3. Mr. Ram Gopal invested ₹ 8,000 in 7% ₹ 100 shares at ₹ 80. After a year he sold these shares at ₹ 75 each and invested the proceeds (including his dividend) in 18%, ₹ 25 shares at ₹ 41.
Find : (i) His dividend for the first year
(ii) His annual income in the second year
(iii) The percentage increase in his return on his original investment.

2007

1. Ajay owns 560 shares of a company. The face value of each share is ₹ 25. The company declares a dividend of 9%. Calculate :
(i) The dividend that Ajay will get.
(ii) The rate of interest on his investment, if Ajay had paid ₹ 30 for each share.
2. Saloni deposited ₹ 150 per month in her bank for eight months under the Recurring Deposit Scheme. What will be the maturity value of her deposit, if the rate of interest is 8% per annum and the interest is calculated at the end of every month?
3. Dinesh bought an article for ₹ 374, which included a discount of 15% on the marked price and a sales tax of 10% on the reduced price. Find the marked price of the article.

2008

1. A company with 4000 shares of nominal value of ₹ 110 each declares an annual dividend of 15%. Calculate :
(i) The total amount of dividend paid by the company.
(ii) The annual income of Shah Rukh who holds 88 shares in the company.
(iii) If he received only 10% on his investment, find the price Shah Rukh paid for each share.
2. A shopkeeper buys a camera at a discount of 20% from the wholesaler, the printed price of the camera being ₹ 1600 and the rate of sales tax is 6%. The shopkeeper sells it to the buyer at the printed price and charges tax at the same rate. Find :
(i) The price at which the camera can be bought.
(ii) The VAT (value added tax) paid by the shopkeeper.

3. David opened a Recurring Deposit Account in a bank and deposited Rs.300 per month for two years. If he received ₹ 7725 at the time of maturity, find the rate of interest per annum.

2009

1. A shopkeeper bought a TV at a discount of 30% of the listed price of ₹ 24,000. The shopkeeper offers a discount of 10% of the listed price to his customer. If the VAT (Value Added Tax) is 10%.
Find : (i) The amount paid by the customer.
(ii) The VAT to be paid by the shopkeeper.
2. Amit Kumar invests ₹ 36,000 in buying Rs. 100 shares at ₹ 20 premium. The dividend is 15% per annum. Find :
(i) The number of shares he buys.
(ii) His yearly dividend.
(iii) The percentage return on his investment.
Give your answer correct to the nearest whole number.
3. Mrs. Goswami deposits Rs. 1000 every month in a recurring deposit account for 3 years at 8% interest per annum. Find the maturity value.

2010

1. Vivek invests ₹ 4500 in 8%, ₹ 10 shares at ₹ 15. He sells the shares when the price rises to ₹ 30, and invests the proceeds in 12% ₹ 100 shares at ₹ 125. Calculate :
(i) The sale proceeds.
(ii) The number of ₹ 125 shares he buys.
(iii) The change in his annual income from dividend.
2. A manufacturer marks an article for ₹ 5000. He sells it to a wholesaler at a discount of 25% on the marked price and the wholesaler sells it to a retailer at a discount of 15% on the marked price. The retailer sells it to a consumer at the marked price and at each stage the VAT is 8%. Calculate the amount of VAT received by the Government from :
(i) The wholesaler
(ii) The retailer
3. Tarun bought an article for ₹ 8000 and spent ₹ 1000 for transportation. He marked the article at ₹ 11,700 and sold it to a customer. If the customer had to pay 10% sales tax, find :
(i) The customer's price
(ii) Tarun's profit percent
4. Mr. Gupta opened a recurring deposit account in a bank. He deposited ₹ 2500 per month for two years. At the time of maturity he got ₹ 67,500. Find :
(i) The total interest earned by Mr. Gupta.
(ii) The rate of interest per annum.

2011

1. A manufacturer sells a washing machine to a wholesaler for ₹ 15,000. The wholesaler sells it to a trader at a profit of ₹ 1,200 and the trader in turn sells it to a consumer at a profit of ₹ 1800. If the rate of VAT is 8% find :
 - (i) The amount of VAT received by the State Government on the sale of this machine from the manufacturer and the wholesaler.
 - (ii) The amount that the consumer pays for the machine
2. Mr. Parekh invested ₹ 52,000 on ₹ 100 shares at a discount of ₹ 20 paying 8% dividend. At the end of one year he sells the shares at a premium of ₹ 20. Find :
 - (i) The annual dividend
 - (ii) The profit earned including his dividend.
3. Ahmed has a recurring deposit account in a bank. He deposits ₹ 2,500 per month 2 years. If he gets ₹ 66,250 at the time of maturity, find :
 - (i) The interest paid by the bank.
 - (ii) The rate of interest.

2012

1. The printed price of an article is ₹ 60,000. The wholesaler allows a discount of 20% to the shopkeeper. The shopkeeper sells the article to the customer at the printed price. Sales tax (under VAT) is charged at the rate of 6% at every stage. Find :
 - (i) The cost to the shopkeeper inclusive of tax.
 - (ii) VAT paid by the shopkeeper to the Government.
 - (iii) The cost to the customer inclusive of tax.
2. A man invests ₹ 9600 on ₹ 100 shares at ₹ 80. If the company pays him 18% dividend find :
 - (i) The number of shares he buys.
 - (ii) His total dividend.
 - (iii) His percentage return on the shares.
3. Kiran deposited ₹ 200 per month for 36 months in a bank's recurring deposit account. If the bank pays interest at the rate of 11% per annum, find the amount she gets on maturity.

2013

1. Mr. Britto deposits a certain sum of money each month in a Recurring Deposit Account of a bank. If the rate of interest is of 8% per annum and Mr. Britto gets ₹ 8088 from the bank after 3 years, find the value of his monthly instalment.

2. Salman buys 50 shares of face value ₹ 100 available at Rs. 132.
 - (i) What is his investment?
 - (ii) If the dividend is 7.5%, what will be his annual income?
 - (iii) If he wants to increase his annual income by ₹ 150, how many extra shares should he buy?
3. A shopkeeper sells an article at the listed price of ₹ 1500 and the rate of VAT is 12% at each stage of sale. If the shopkeeper pays a VAT of ₹ 36 to the Government, what was the price, inclusive of Tax; at which the shopkeeper purchased the article from the wholesaler?

2014

1. Shahrukh opened a Recurring Deposit Account in a bank and deposited ₹ 800 per month $1\frac{1}{2}$ years. If he received ₹ 15,084 at the time of maturity, find the rate of interest per annum.
2. A shopkeeper bought a washing machine at a discount of 20% from a wholesaler, the printed price of the washing machine being ₹18,000. The shopkeeper sells it to a consumer at a discount of 10% on the printed price. If the rate of sales tax is 8%, find.
 - (i) The VAT paid by the shopkeeper.
 - (ii) Total amount that the consumer pays for the washing machine.
3. Salman invests a sum of money in ₹ 50 shares, paying 15% dividend quoted at 20% premium. If his annual dividend is ₹ 600, calculate :
 - (i) The number of shares he bought.
 - (ii) His total investment.
 - (iii) The rate of return on his investment.

2015

1. A shopkeeper bought an article for ₹ 3,450. He marks the price of the article 16% above the cost price. The rate of sales tax charged on the article is 10%. Find the :
 - (i) Market price of the article.
 - (ii) Price paid by a customer who buys the article.
2. Katrina opened a recurring deposit account with a Nationalised Bank for a period of 2 years. If the bank pays interest at the rate 6% per annum and the monthly instalment is ₹ 1,000, find the :
 - (i) Interest earned in 2 years.
 - (ii) Matured value
3. Rohit invested ₹ 9,600 on ₹ 100 shares at ₹ 20 premium paying 8% dividend. Rohit sold the shares when the price rose to ₹ 160. He invested the proceeds (excluding dividend) in 10% ₹ 50 shares at ₹ 40.

Find the:

- (i) Original number of shares
 - (ii) Sale proceeds
 - (iii) New number of shares.
 - (iv) Change in the two dividends.
4. A wholesaler buys a TV from the manufacturer for ₹ 25,000. He marks the price of TV 20% above his cost price and sells it to a retailer at a 10% discount on the market price.
If the rate of VAT is 8%, find the :
- (i) Market price
 - (ii) Retailer's cost price inclusive of tax.
 - (iii) VAT paid by the wholesaler.

2016

1. A dealer buys an article at a discount of 30% from the wholesaler, the marked price being ₹ 6000. The dealer sells it to a shopkeeper at a discount of 10% on the marked price. If the rate of VAT is 6%, find
 - (i) The price paid by the shopkeeper including the tax.
 - (ii) The VAT paid by the dealer.
2. Mohan has a recurring deposit account in a bank for 2 years at 6% p.a. simple interest. If he gets ₹ 1200 as interest at the time of maturity, find:
 - (i) The monthly installment
 - (ii) The amount of maturity.
3. Ashok invested ₹ 26,400 on 12%, ₹ 25 shares of a company. If he receives a dividend of ₹ 2,475. Find the :
 - (i) Number of shares he bought
 - (ii) Market value of each share

2017

1. The catalogue price of a computer set is ₹ 42000. The shopkeeper gives a discount of 10% on the listed price. He further gives an off-season discount of 5% on the discounted price. However, sales tax at 8% is charged on the remaining price after the two successive discounts. Find.
 - (i) The amount of sales tax a customer has to pay
 - (ii) The total price to be paid by the customer for the computer set.
2. How much should a man invest in ₹ 50 shares selling at ₹ 60 to obtain an income of ₹ 450, if the rate of dividend declared is 10%. Also find his yield percent, to the nearest whole number.

3. The printed price of an air conditioner is ₹ 45,000. The wholesaler allows a discount of 10% to the shopkeeper. The shopkeeper sells the article to the customer at a discount of 5% of the marked price. Sales tax (under VAT) is charged at the rate of 12% at every stage. Find :
- VAT paid by the shopkeeper to the government.
 - The total amount paid by the customer inclusive of tax.
4. Mr. Richard has a recurring deposit account in a bank for 3 years at 7.5% p.a. simple interest. If he gets ₹ 8325 as interest at the time of maturity, find :
- The monthly deposit
 - The maturity value.

