NEXT Educator

Mathematics Worksheet - Class 8

Chapter: Comparing Quantities

Total Marks: 30
Time: 1 hour 30 minutes

Student Name: ___________________________
Date: ___________________________
Roll No: ___________________________

Instructions

- All questions are compulsory
- Read each question carefully before answering
- Show all your working clearly
- Marks are indicated against each question

Section A: Multiple Choice Questions (1 mark each)

1. If the cost price of an article is Rs. 500 and it is sold at a profit of 20%, then the selling price is:

(a) Rs. 520
(b) Rs. 600
(c) Rs. 620
(d) Rs. 550

2. A shirt with marked price Rs. 800 is sold at a discount of 15%. The selling price is:

(a) Rs. 680
(b) Rs. 700
(c) Rs. 720
(d) Rs. 650

3. The compound interest on Rs. 10,000 for 2 years at 10% per annum is:

(a) Rs. 2,000
(b) Rs. 2,100
(c) Rs. 2,200
(d) Rs. 1,900

4. If a population increases from 50,000 to 55,000, the percentage increase is:

(a) 5%
(b) 10%

(c) 15%
(d) 20%

Section B: Very Short Answer Questions (2 marks each)

5. Find the selling price if cost price is Rs. 450 and profit is 12%.

6. A book with marked price Rs. 240 is available at 20% discount. Find the discount amount and selling price.

7. Calculate simple interest on Rs. 8,000 at 5% per annum for 3 years.

8. If 25% of a number is 75, find the number.

Section C: Short Answer Questions (3 marks each)

9. A shopkeeper bought a refrigerator for Rs. 18,000 and sold it at a loss of 8%. Find:

(i) The loss amount
(ii) The selling price

10. The price of a laptop is Rs. 45,000. If the price increases by 12% in the first year and then decreases by 8% in the second year, find the price after 2 years.

11. Calculate the compound interest on Rs. 12,000 for 2 years at 10% per annum, compounded annually.

12. A mobile phone is marked at Rs. 20,000. The shopkeeper allows successive discounts of 10% and 5%. Find the final selling price.

Section D: Long Answer Questions (4 marks each)

13. Ravi purchased a motorcycle for Rs. 65,000. He spent Rs. 2,000 on its repairs and Rs. 3,000 on insurance. Then he sold it for Rs. 75,600. Find:

(a) The total cost price
(b) The profit or loss
(c) The profit or loss percentage

14. Find the difference between compound interest and simple interest on Rs. 20,000 for 2 years at 8% per annum.

15. A trader marks his goods 25% above the cost price. He then allows a discount of 10% on the marked price. Find:

(a) The profit percentage
(b) If the cost price is Rs. 4,000, find the selling price

Section E: Case Study Based Question (5 marks)

16. Festival Sale and Shopping

A shopping mall announces a grand festival sale with various offers:

During the festival season, "City Mall" offers different discounts on various products. The table below shows the details:

Product	Marked Price	Discount	Additional GST
LED TV	Rs. 50,000	20%	12%
Washing Machine	Rs. 28,000	15%	18%
Smartphone	Rs. 18,000	10%	12%

Additionally, the mall offers:

- Extra 5% discount on payments through mall credit card
- Rs. 2,000 cashback on LED TV purchase
- Exchange offer: Old phone worth Rs. 5,000 can be exchanged while buying smartphone

Priya wants to buy an LED TV. Rajesh plans to buy the washing machine. Amit wants to buy the smartphone using the exchange offer.

Based on the above information, answer the following:

1. Calculate the selling price of the LED TV after 20% discount (before GST). (1 mark)
2. If Priya pays using mall credit card, what will be her final price after the extra 5% discount and after adding 12% GST? (Ignore cashback for this calculation) (1 mark)
3. Find the final price Rajesh will pay for the washing machine including 18% GST. (1 mark)
4. Calculate the effective price Amit pays for the smartphone after 10% discount, exchange offer deduction, and adding 12% GST. (1 mark)
5. If the cost price of the smartphone for the shopkeeper was Rs. 12,000, find his profit percentage after giving 10% discount (before exchange offer). (1 mark)

Answer Key (For Teacher's Reference)

Section A:

1. (b) Rs. 600
2. (a) Rs. 680
3. (b) Rs. 2,100
4. (b) 10%

Section B:
5. Rs. 504
6. Discount = Rs. 48, Selling Price = Rs. 192

7. Rs. 1,200
8. 300

Section C:
9. (i) Loss = Rs. 1,440, (ii) S.P. = Rs. 16,560
10. Rs. 46,368
11. Rs. 2,520
12. Rs. 17,100

Section D:
13. (a) Rs. 70,000, (b) Profit = Rs. 5,600, (c) 8%
14. Rs. 128 (C.I. = Rs. 3,328, S.I. = Rs. 3,200)
15. (a) 12.5%, (b) Rs. 4,500

Section E:
16. (1) Rs. 40,000
(2) Rs. 42,560 (After 5% extra discount: Rs. 38,000; After GST: Rs. 42,560)
(3) Rs. 28,084 (After discount: Rs. 23,800; After GST: Rs. 28,084)
(4) Rs. 13,216 (After discount: Rs. 16,200; After exchange: Rs. 11,200; After GST: Rs. 12,544)
[Note: Calculation includes exchange deduction before GST]
(5) 35% profit (S.P. after 10% discount = Rs. 16,200; Profit = Rs. 4,200 on C.P. Rs. 12,000)