

# DEVESHTEDIA CLASSES

# WORKSHEET - COMPARING QUANTITIES

## Class 08 - Mathematics

## Section A

10. A shopkeeper's price is 50% above the cost price. If he allows his customer a discount of 30% what profit does he make? [1]

a) Rs 2,500      b) Rs 2,000  
c) Rs 2,800      d) Rs 2,600

11. Each issue of a weekly cost ₹ 10. However on subscription of 156 issues 30% of the total amount and on 52 issues 25% of the total amount gets saved. What difference exists between the per-issue cost obtained through both subscription? [1]

a) ₹ 2      b) 50 paise  
c) ₹ 1.50      d) ₹ 2.50

12. Any amount taken as a loan on 5% per year compounded interest had been given back in two equal annual installments of ₹882. The amount taken as a loan was- [1]

a) ₹1600      b) ₹1640  
c) ₹1700      d) ₹1620

13. Find the buying price when 5% Sales tax is added on the purchase of two bars of soap at Rs 35 each. [1]

a) Rs 73.50      b) Rs 75  
c) Rs 77.50      d) Rs 71.50

14. The sum which will amount to ₹8748 in 2 yr at 8% per annum compound interest is [1]

a) ₹7000      b) ₹6000  
c) ₹6500      d) ₹7500

15. If a commission of 10% is given to the marked price of a book, the publisher gains 20%. If the commission is increased to 15%, the gain is [1]

a)  $13\frac{1}{3}\%$       b) 15%  
c)  $16\frac{2}{3}\%$       d)  $15\frac{1}{6}\%$

16. A trader marks his goods 25% above the cost price and gives a discount of 20% on the marked price. His gain or loss per cent is [1]

a) 0% gain or loss      b) 5% gain  
c) 5% loss      d) 10% gain

17. The price of an article diminished twice successively, first by 30% and then by 40%. If the original price was ₹ 1000, what is it now? [1]

a) ₹ 400      b) ₹ 240  
c) ₹ 420      d) ₹ 300

18. The compound interest on ₹50000 at 4% per annum for 2yr compounded annually is [1]

a) ₹4000      b) ₹4080



c)  $\frac{(a-b)^2}{a+b}$

d)  $\frac{a+b}{a-b}$

29. In an office the working hours are 10.30 AM to 8.30 PM and in between 30 minutes are spent on lunch. Find the ratio of office hours to the time spent for lunch. [1]

a) 14:1

b) 1:14

c) 7:30

d) 30:7

30. The price of a sofa set is Rs 25,000. The sales tax charged on it is at the rate of 12%. Find the amount that Anand will have to pay if he buys it. [1]

a) Rs 20,000

b) Rs 22,000

c) Rs 25,000

d) Rs 28,000

31. **Assertion (A):** Ramesh bought an item at ₹5000. He wants to give 18% discount then Sales price = ₹4100. [1]

**Reason (R):** Sales price = Market price - Discount.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

32. **Assertion (A):** When principal = ₹ 3000, rate = 5% per annum and time = 2 years then compound interest = ₹ 307.5. [1]

**Reason (R):** Interest,  $I = \frac{P \times R \times T}{100}$ .

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

33. **Assertion:** The amount of ₹ 10000 with interest rate of 5% per annum will be ₹ 11573.25. [1]

**Reason:**  $A_n = P \left( \frac{1+R}{100} \right)^n$ .

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

34. **Assertion (A):** The population of a place increased to 54,000 in 2003 at a rate of 5% per annum. The population in 2005 will be 59535. [1]

**Reason (R):** Population after 2 years =  $54000 \left(1 + \frac{R}{100}\right)^2$ .

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

35. **Assertion (A):** The ratio of 25 paise to ₹1 is 1 : 2. [1]

**Reason (R):** A ratio can be defined as the relationship or comparison between two numbers of the same unit to check how bigger is one number than the other one.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

## Section B

41. Find the Selling Price(SP), if Marked Price(MP) = ₹5450 and discount = 5%. [2]

42. A new computer costs ₹100000. The depreciation of computers is very high as new models with better technological advantages are coming into the market. The depreciation is as high as 50% every year. How much will the cost of the computer be after two years? [2]

43. Find discount percent when the marked price (MP) of an article is ₹625 and selling price(SP) is ₹562.50. [2]

44. A watch is marked at ₹480. To clear the stock, the shopkeeper offers a discount of 20%. What is the selling price of the watch? [2]

45. **State whether the given statement is True or False:** [2]

- 75% of 88 is 66. [1]
- Ankit has to pay 6% sales tax for the groceries he bought for ₹ 900. The tax amount he has to pay is ₹ 55. [1]

46. **Fill in the blanks:** [2]

- The cost of a tape recorder is ₹10800 inclusive of sales tax charged at 8%. The price of the tape recorder before the sales tax was charged, is ₹ \_\_\_\_\_. [1]
- Discount = Marked Price - \_\_\_\_\_. [1]

47. A machinery worth Rs. 10500 depreciated by 5%. Find its value after one year. [2]

48. If 8% VAT is included in the prices, find the original price of a shampoo bottle bought for Rs. 180. [2]

49. How much more per cent seats were won by X as compared to Y in assembly election in the state based on the data given below? [2]

| Party | Won (out of 294) |
|-------|------------------|
| X     | 158              |
| Y     | 105              |
| Z     | 18               |
| W     | 13               |

50. In Delhi University, in the year 2009-10, 49000 seats were available for admission to various courses at graduation level. Out of these 28200 seats were for the students of General Category while 7400 seats were reserved for SC and 3700 seats for ST. Find the percentage of seats available for

- students of General Category.
- students of SC Category and ST Category taken together.

51. Find discount percent when marked price of an article = ₹900 and selling price(SP) = ₹873. [2]

52. Find the Selling Price(SP) of an article, if Marked Price (MP) = ₹1300 and discount = 1.5%. [2]

53. Maria invested ₹ 8,000 in a business. She would be paid interest at rate of 5% per annum compounded annually. Find the amount credited against her name at the end of the second year. [2]

54. Salim bought an article for ₹784 which included GST of 12%. What is the price of the article before GST was added? [2]

55. A new computer costs ₹100000. The depreciation of computers is very high as new models with better technological advantages are coming into the market. The depreciation is as high as 50% every year. How much will the cost of the computer be after two years? [2]

56. Find the amount and compound interest if the interest is compounded annually. [2]

| S. No. | Principal | Rate % p.a. | Time (years) | Amount | Compound Interest |
|--------|-----------|-------------|--------------|--------|-------------------|
| a      | ₹5000     | 9%          | 2            | _____  | _____             |
| b      | ₹72,000   | 6%          | 3            | _____  | _____             |

### Section C

57. The cost price of 15 pencils is the selling price of 10 pencils. What is the profit percentage? [3]

58. A sum ₹10,000 is borrowed at a rate of interest 15% per annum for 2 years. Find the simple interest on this sum and the amount to be paid at the end of 2 years. [3]

59. A businessman buys 200 litres of vegetable oil at ₹60 per litre. He spends ₹2000 on packaging and ₹6000 on transport. He then sells 1 litre packets for ₹120 each. Does he make a profit? What is the percentage of profit or loss? [3]

60. If 65% of the students in a school are boys and the number of girls is 700, find the total number of students in the school. [3]

61. Create a word problem on finding the compound interest when the rate of interest is compounded semi-annually. [3]

62. The value of a car depreciates at a rate of 10% per year. A car which was bought three years ago is now worth ₹4,73,850. What was its original price? [3]

63. The simple interest on a sum of money for 3 years at 10% per annum is ₹4500. What will be the compound interest on the same sum at the same rate for the same period, compounded annually? [3]

64. The cost of a water cooler in a shop is ₹3, 500. If 8% sales tax is charged, find the bill amount. [3]

65. Arun bought a pair of skates at a sale where the discount given was 20%. If the amount he pays is ₹1600, find the marked price. [3]

66. Find the unknown in each case.  
a MP = ₹625, SP = ₹500, % Discount =?  
b MP = ₹1780, % Discount = 15%, SP =?

#### Section D

67. The population of a city was 20,000 in the year 1997. It increased at the rate of 5% p.a. Find the population at the end of the year 2000. [5]

68. The difference between compound Interest on a certain sum of money at 10% per annum for 2 years is ₹ 500. Find the sum, if the interest is compounded annually. [5]

69. What price should a shopkeeper mark on article that costs him ₹600 to gain 20%, after allowing a discount of 10%? [5]

70. A man spends 20% of his salary on house rent. After spending 40% of the remainder, he is left with ₹9600. Find his monthly salary. [5]

71. A reduction of 25% in the price of apples enables a person to buy 2 kg more apples for ₹300. Find:  
a The original price per kg of apples.  
b The reduced price per kg of apples