MATHS

NCERT - NCERT MATHEMATICS(ENGLISH)

COMPARING QUANTITIES

Exercise 8 2

1. The price of a TV is Rs 13,000. The sales tax charged on it is at the rate of 12%. Find the

amount that Vinod will have to pay if he buys it.

2. I purchased a hair-dryer for Rs 5,400 including 8% VAT. Find the price before VAT was added.

A. $Rs.\ 5400$

B. $Rs.\ 4000$

C. $Rs.\ 4500$

D. $Rs.\ 6500$

Answer: A

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3. A shopkeeper buys 80 articles for Rs 2,400 and sells them for a profit of 16%. Find the selling price of one article.

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4. A man got a 10% increase in his salary. If his new salary is Rs 1,54,000, find his original salary.

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5. A milkman sold two of his buffaloes for Rs 20,000 each. On one he made a gain of 5% and on the other a loss of 10%. Find his overall gain or loss. (Hint: Find CP of each)

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6. During a sale, a shop offered a discount of 10% on the marked prices of all the items. What would a customer have to pay for a pair of jeans marked at Rs 1450 and two shirts marked at Rs 850 each?

A. $Rs.\ 2975$

B. $Rs.\ 2835$

C. $Rs.\ 3300$

D. $Rs.\ 3150$

Answer: B

7. On Sunday 845 people went to the Zoo. On Monday only 169 people went. What is the per cent decrease in the people visiting the Zoo on Monday?

8. A VCR and TV were bought for Rs 8,000 each. The shopkeeper made a loss of 4% on the VCR and a profit of 8% on the TV. Find the gain or loss percent on the whole transaction.

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9. Arun bought a pair of skates at a sale where the discount given was 20%. If the amount he pays is Rs 1,600, find the marked price.

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10. The cost of an article was Rs 15,500. Rs 450 were spent on its repairs. If it is sold for a profit of 15%, find the selling price of the article.

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Exercise 8 3

1. Maria invested Rs 8,000 in a business. She would be paid interest at 5% per annum

compounded annually. Find

(i)The amount credited against her name at the end of the second year.

(ii)The interest for the 3rd year.

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2. In a Laboratory, the count of bacteria in a certain experiment was increasing at the rate of 2.5% per hour. Find the bacteria at the end of 2 hours if the count was initially 5,06,000.

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3. The population of a place increased to 54,000 in 2003 at a rate of 5% per annum(i) find the population in 2001.(ii) what would be its population in 2005?

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4. Find the amount and the compound interest on $Rs 10,000$ for $(1)\dfrac{1}{2}$ years at 10% per annum, compounded half yearly.

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5. Find the amount which Ram will get on $Rs4096,$ if he gave it for 18 months at $(12)\dfrac{1}{2}\%$ per annum, interest being compounded half

6. Calculate the amount and compound interest on

(a) $Rs10,800$ for 3 years at $(12)\dfrac{1}{2}\%$ per

annum compounded annually.

(b) $Rs18,000$ for $(2)\dfrac{1}{2}$ years at 10% per annum compounded annually.

(c) $Rs62,500$ for $(1)\dfrac{1}{2}$ years at 8% per annum compounded half yearly.

(d) $Rs8,000$ for 1 year at 9% per annum compounded half yearly. (You could use the year by year calculation using SI formula to verify).

(e) $Rs10,000$ for 1 year at 8% per annum compounded half yearly.

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7. Fabina borrows Rs 12,500 at 12% per annum for 3 years at simple interest and Radha borrows the same amount for the same time period at 10% per annum, compounded annually. Who pays more interest and by how much?

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8. I borrowed Rs 12,000 from Jamshed at 6% per annum simple interest for 2 years. Had I

borrowed this sum at 6% per annum compound interest, what extra amount would I have to pay?

9. Vasudevan invested Rs 60,000 at an interest rate of 12% per annum compounded half yearly. What amount would he get(i) after 6 months?(ii) after 1 year?

10. Arif took a loan of Rs 80,000 from a bank. If the rate of interest is 10% per annum, find the difference in amounts he would be paying after $(1)\dfrac{1}{2}$ years if the interest is (i) compounded annually. (ii) compounded half yearly.

11. Kamala borrowed Rs 26, 400 from a Bank to buy a scooter at a rate of 15% p.a. compounded yearly. What amount will she pay

at the end of 2 years and 4 months to clear the loan? (Hint: Find A for 2 years with interest is compounded yearly and then find SI on the 2nd year amount for $\dfrac{4}{12}$ years).

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12. A scooter was bought at Rs 42,000. Its value depreciated at the rate of 8% per annum. Find its value after one year.

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1. What amount is to be repaid on a loan of $Rs 12000$ for $(1)\dfrac{1}{2}$ years at 10% per annum compounded half yearly.

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2. Find CI paid when a sum of $Rs 10,000$ is invested for 1 year and 3 months at $(8)\dfrac{1}{2}\%$ per annum compounded annually.

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3. A sum of Rs 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.

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4. Find CI on Rs 12600 for 2 years at 10% per annum compounded annually.

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5. 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.

6. A TV was bought at a price of Rs 21,000. After one year the value of the TV was depreciated by 5% (Depreciation means

reduction of value due to use and age of the item). Find the value of the TV after one year.

7. (Value Added Tax (VAT)) Waheeda bought an air cooler for Rs 3300 including a tax of 10%. Find the price of the air cooler before VAT was added.

8. (Finding Sales Tax) The cost of a pair of roller skates at a shop was Rs 450. The sales tax charged was 5%. Find the bill amount.

9. A picnic is being planned in a school for Class VII. Girls are 60% of the total number of students and are 18 in number.The picnic site is 55 km from the school and the transport company is charging at the rate of Rs 12 per

km. The total cost of refreshments will be Rs 4280. Can you tell.1.   The ratio of the number of girls to the number of boys in the class?2.   The cost per head if two teachers are also going with the class?3.   If their first stop is at a place 22 km from the school, what per cent of the total distance of 55 km is this? What per cent of the distance is left to be covered?

10. An item marked at Rs 840 is sold for Rs 714. What is the discount and discount %?

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11. The price of a scooter was Rs 34,000 last year. It has increased by 20% this year. What is the price now?

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12. Sohan bought a second hand refrigerator for Rs 2,500, then spent Rs 500 on its repairs and sold it for Rs 3,300. Find his loss or gain per cent.

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13. The list price of a frock is Rs 220. A discount of 20% is announced on sales. What is the amount of discount on it and its sale price.

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14. Meenu bought two fans for Rs 1200 each. She sold one at a loss of 5% and the other at a profit of 10%. Find the selling price of each. Also find out the total profit or loss.

15. A shopkeeper purchased 200 bulbs for Rs 10 each. However 5 bulbs were fused and had to be thrown away. The remaining were sold at Rs 12 each. Find the gain or loss %.

1. If 60% people in a city like cricket, 30% like football and the remaining like other games, then what per cent of the people like other games? If the total number of people are 50 lakh, find the exact number who like each type of game.

2. A football team won 10 matches out of the total number of matches they played. If their win percentage was 40, then how many matches did they play in all?

3. If Chameli had Rs 600 left after spending 75% of her money, how much did she have in the beginning ?

A. $2100Rs$

B. $2200Rs$

C. $2300Rs$

D. $2400Rs$

Answer: D

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4. Convert the following ratios to percentages.

(a) 3 : 4   (b) 2 : 3

5. 72% of 25 students are good in mathematics. How many are not good in mathematics?

6. Find the ratio of the following.(a) Speed of a cycle 15 km per hour to the speed of scooter 30 km per hour.(b) 5 m to 10 km (c) 50 paise to Rs 5

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