MATHS

BOOKS - PSEB

COMPARING QANTITIES

Example

1. 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 : The ratio of the number of girls to the number of boys in the class?

2. 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 : The cost per head if two teachers are also going with the class?

3. 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 : 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?

4. Find the ratio of the following: Speed of a cycle 15 km per hour to the speed of scoter 30 km per hour.

5. Find the ratio of the following: 5 m to 10 km

6. Find the ratio of the following: 50 paise to Rs 5

7. Convert the following ratios to percentages

: 3 : 4

8. Convert the following ratios to percentages

: 2 : 3

9. 72% of 25 students are good in mathematics. How many are not good in mathematics?

10. 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?

11. If Chemeli had Rs 600 left after spending 75% of her money, how much did she have in the begining?

12. 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.

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

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

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15. 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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16. 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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17. A shopkeeper purchased 200 bulds for Rs 10 each. However 5 bulbs were fused and had to be thrown away. The remaining were sold Rs 12 each. Find the gain or loss %.

18. 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.

19. (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.

20. (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.

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

salary.

22. 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?

23. 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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24. 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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25. 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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26. 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?

27. A milkman sold twoof his buffaloes for Rs 20,000 each. On one the made a gain of 5% and on the other a loss of 10%. Find his overall gain or loss.

28. 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.

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29. 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.

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

31. 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.

32. Find CI on Rs 12600 for 2 years at 10% per annum compunded annually.

33. 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.

34. 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.

35. 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.

36. 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.

37. Calculate the amount and compound interest on : Rs 10,800 for 3 years $12\dfrac{1}{2}$ % per

annum compounded annually.

38. Calculate the amount and compound interest on : Rs 18,000 for $2\dfrac{1}{2}$ years at 10% per annum compounded annually.

39. Calculate the amount and compound interest on : Rs 62,500 for $1\dfrac{1}{2}$ years at 8% per

annum compounded half yearly.

40. Calculate the amount and compund interest on : Rs8,000 for 1 year at 9% per annum compounded hal fyearly. (You could use the year by year calculation using SI formula to verify).

41. Calculate the amount and compound interest on : Rs 10,000 for 1 year at 8% per annum compounded half yearly.

42. 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?

43. 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?

44. 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?

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45. Vasudevan invested 60,000 at an interest rate of 12% per annum compounded half

yearly. What amount would he get after 6 months?

46. Vasudevan invested Rs 60,000 at an interest rate of 12% per annum compounded half yearly. What amount would he get after 1 year?

47. 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 : compounded annually.

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49. Maria invested Rs 8,000 in a business. She would be paid interest at 5% per annum compounded annually. Find : The amount credited against her name at the end of the second year.

50. Maria invested Rs 8,000 in a business. She would be paid interest at 5% per annum compounded annually. Find : The interest for the 3rd year.

51. Find the amount and the compound interest on Rs 10,000 for $1\dfrac{1}{2}$ years at 10% per annum, compounded half yearly. Would this interest be more than the interest he would get if it was compounded annually?

52. The population of a place increased to 54,000 in 2003 at a rate of 5% per annum : find the population in 2001.

53. The population of a place increased to 54,000 in 2003 at a rate of 5% per annum : what would be its population in 2005?

54. 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.

55. 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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