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## MATHS

## BOOKS - SWAN PUBLICATION

## COMPARING QUANTITIES

## Try These

1. In a primary school, the parents were asked
about the number of hours they spent per day
in helping their. Children to do home work.

There were 90 parents who helped for $\frac{1}{2}$ hour to $1 \frac{1}{2}$ hours. The distribution of parents according to the time for which, they said they helped is given in the figure below : $20 \%$ helped for more than $11 / 2$ hours per day, $30 \%$ helped for $\frac{1}{2}$ hour to $1 \frac{1}{2}$ hours, $50 \%$ did not help at all.


Using this, answer the following:

How many said that they helped for more than
$1 \frac{1}{2}$ hours?
2. In a primary school, the parents were asked about the number of hours they spent per day in helping their. Children to do home work. There were 90 parents who helped for $\frac{1}{2}$ hour to $1 \frac{1}{2}$ hours. The distribution of parents according to the time for which, they said they
helped is given in the figure below : $20 \%$ helped for more than $11 / 2$ hours per day, $30 \%$ helped for $\frac{1}{2}$ hour to $1 \frac{1}{2}$ hours, $50 \%$ did not help at all.

Using this, answer the following:

How many said that they helped for more than $1 \frac{1}{2}$ hours?

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3. In a primary school, the parents were asked about the number of hours they spent per day
in helping their. Children to do home work.
There were 90 parents who helped for $\frac{1}{2}$ hour
to $1 \frac{1}{2}$ hours. The distribution of parents according to the time for which, they said they helped is given in the figure below : $20 \%$ helped for more than $11 / 2$ hours per day, $30 \%$ helped for $\frac{1}{2}$ hour to $1 \frac{1}{2}$ hours, $50 \%$ did not help at all.


Using this, answer the following:

How many said that they helped for more than
$1 \frac{1}{2}$ hours?
4. A shop gives $20 \%$ discount. What would the sale price of each of these be?

A dress marked at Rs. 120.

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5. A shop gives $20 \%$ discount. What would the sale price of each of these be?

A pair of shoes marked at Rs. 750.
6. A shop gives $20 \%$ discount. What would the sale price of each of these be ?

A bag marked at Rs.250.

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7. A table marked at Rs. 15,000 is available for

Rs. 14,400 . Find the discount given and the discount per cent.
8. An almirah is sold at Rs. 5225 after allowingg a discount of $5 \%$.Find its marked price.

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9. Your bill in a shop is Rs 577.80.

Try estimating $20 \%$ of the same bill amount.

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10. Your bill in a shop is Rs 577.80 .

Try finding $15 \%$ of Rs 375
11. Find selling price (SP) if a profit of $5 \%$ is made on :
a cycle of Rs. 700 with Rs. 50 as overhead charges.

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12. Find selling price (SP) if a profit of $5 \%$ is made on :
a lawn mower bought at Rs. 1150 with Rs. 50 as transporation charges.

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13. Find selling price (SP) if a profit of $5 \%$ is made on :
a fan bought for Rs. 560 and expenses of Rs. 40 made on its repairs.
14. A shopkeeper bought two $T V$ sets at Rs.10,000 each.He sold one at a profit of $10 \%$ and the other at a loss of $10 \%$.Find whether he made an overall profit or loss.

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15. Find the buying price of each ofthe following when $5 \%$ ST is added on the purchase of:

A towel at Rs.50.
16. Find the buying price of each of the following when $5 \%$ ST is added on the purchase of

Two bars of soap at Rs 35 each

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17. If $8 \%$ VAT is included in the prices ,find the original price of

A TV bought for Rs.13,500.
18. If $8 \%$ VAT is included in the prices ,find the original price of, A shampoo bottle bought for Rs. 180.

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19. Find the interest and amount to be paid on

Rs 15000 at $5 \%$ per annum after 2 years

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20. Find Cl on a sum of Rs. 8000 ofr 2 yeas at 5\% per annum comounded annually.

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21. Find the time period and rate for each.

A sum taken for $1 \frac{1}{2}$ years at $8 \%$ per annum is compounded half yearly.
22. Find a time period and a rate for each A sum taken for 2 years at $4 \%$ per annum is compounded half yearly.

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23. At the end of 2 yeas on Rs. 2,400 at $5 \%$ per annum compounded annually.

- Watch Video Solution

24. At the end of 1 year on Rs. 1,800 at $8 \%$ per annum compounded quarterly.

## D Watch Video Solution

25. A machinerty worth Rs.10,500 depreciated by $5 \%$.Find its value after one year.

## D Watch Video Solution

26. Find population of a city after 2
years,which is at present 12 lakh,if the rate of increase is $4 \%$.

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## Thick Discuss And Write

1. Two times a numbr is a $100 \%$ increase in the number .lf we take half the number,what would be the decrease in percent?

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2. By what per cent is Rs. 2,000 less than Rs.

2,400 ?

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3. A sum is taken for one year at $16 \%$ p.a. If interest is compounded after every three months,how many times will interest be charged in one year?
4. Find the ratio of the following: Speed of a cycle 15 km per hour to the speed of scoter 30 km per hour.

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2. Find the ratio of the following: 5 m to 10 km
3. Find the ratio of the following: Speed of a
cycle 15 km per hour to the speed of scoter 30 km per hour.

- Watch Video Solution

4. Convert the following ratios to percentages
: 3 : 4

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5. Convert the following ratios to percentages
: $2: 3$

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6. $72 \%$ of 25 students are good in mathematics. How many are not good in mathematics?

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7. 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?

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8. If Chemeli had Rs 600 left after spending
$75 \%$ of her money, how much did she have in the begining?
9. 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.

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Exercise 82

1. 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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2. 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?
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. 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.
5. 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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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?

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7. 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.
8. 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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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.
10. I purchased a hair-dryer for Rs 5,400 including $8 \%$ VAT. Find the price before VAT was added.

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Exercise 83

1. Calculate the amount and compound
interest on: Rs 10,800 for 3 years $12 \frac{1}{2} \%$ per annum compounded annually.
2. Calculate the amount and compound interest on : Rs 18,000 for $2 \frac{1}{2}$ years at $10 \%$ per annum compounded annually.

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3. Calculate the amount and compound interest on : Rs 62,500 for $1 \frac{1}{2}$ years at $8 \%$ per annum compounded half yearly.

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4. 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).

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

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6. 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?

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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?

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

## D Watch Video Solution

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

## D Watch Video Solution

11. 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 $1 \frac{1}{2}$ years if the interest is : compounded half yearly

## D Watch Video Solution

12. 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 $1 \frac{1}{2}$ years if the interest is : compounded half yearly

## D Watch Video Solution

13. 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.

## D Watch Video Solution

14. 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.

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

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16. Find the amount which Ram will get on

Rs.4096,if he gave it for 18 months at $12 \frac{1}{2} \%$ per annum, interest being comounded half yearly.

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17. The population of a place increased to 54,000 in 2003 at a rate of $5 \%$ per annum : find the population in 2001.
18. 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?

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19. 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 $5,06,000$.
20. 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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