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## MATHS

## NCERT - NCERT

## Mathematics(HINGLISH)

## COMPARING QUANTITIES

Exercise 83

1. Arun bought a car for Rs $3,50,000$. The next
year, the price went uptoRs $3,70,000$. What
was the Percentage of price increase?

$$
\begin{aligned}
& \text { A. } \frac{30}{7} \% \\
& \text { B. } \frac{40}{7} \% \\
& \text { C. } \frac{45}{7} \% \\
& \text { D. } \frac{50}{7} \%
\end{aligned}
$$

Answer: B

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2.I buy a T.V. for Rs 10,000 and sell it at a profit of $20 \%$. How much money do I get for it?

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3. If Meena gives an interest of Rs 45 for one year at $9 \%$ rate p.a.. What is the sum she has borrowed?

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4. Tell what is the profit or loss in the following transactions. Also find profit per cent orloss per cent in each case.(a) Gardening shears bought for Rs 250 and sold for Rs 325.
(b) A refrigerater bought for Rs 12,000 and sold at Rs 13,500.(c) A cupboard bought for Rs

2,500 and sold at Rs 3,000.(d) A skirt bought for Rs 250 and sold at Rs 150.

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5. Juhi sells a washing machine for Rs 13,500 .

She loses $20 \%$ in the bargain. What was the price at which she bought it?

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6. (i) Chalk contains calcium, carbon and oxygen in the ratio 10:3:12. Find the percentage of carbon in chalk.(ii) If in a stick of chalk, carbon is 3 g , what is the weight of the chalk stick?
7. Convert each part of the ratio to percentage:(a) 3:1 (b) 2:3:5
(c) $1: 4$
(d) 1:2:5

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8. What rate gives Rs 280 as interest on a sum of Rs 56,000 in 2 years?
9. Amina buys a book for Rs 275 and sells it at
a loss of $15 \%$. How much does she sellit for?

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10. Find the amount to be paid at the end of 3
years in each case:(a) Principal = Rs 1,200 at

12\% p.a. (b) Principal $=$ Rs 7,500 at 5\% p.a.

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11. The population of a city decreased from 25,000 to 24,500 . Find the percentage decrease.

## D Watch Video Solution

Exercise 81

1. Find the ratio of:(a) Rs 5 to 50 paise (b) 15 kg to $210 \mathrm{~g}(\mathrm{c}) 9 \mathrm{~m}$ to 27 cm (d) 30 days to 36 hours

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2. In a computer lab, there are 3 computers for every 6 students. How manycomputers will be needed for 24 students?

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3. Population of Rajasthan $=570$ lakhs and population of UP $=1660$ lakhs.Area of Rajasthan $=3$ lakh km 2 and area of UP $=2$ lakh km 2 .(i) How many people are there per km 2 in
both these States?(ii) Which State is less populated?

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## Exercise 82

1. Convert the given fractional numbers to per cents.
(a) $\frac{1}{8}$
(b) $\frac{5}{4}$
(c) $\frac{3}{40}$
(d) $\frac{2}{7}$

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## 2. Estimate what part of the figures is coloured

 and hence find the per cent which is coloured.
(i)

(ii)

(iii)

D Watch Video Solution
3. Convert the given decimal fractions to per cents.
(a) 0.65 (b) 2.1 (c) 0.02 (d) 12.35

## D Watch Video Solution

4. Find the whole quantity if(a) $5 \%$ of it is 600 .
(b) $12 \%$ of it is Rs 1080 . (c) $40 \%$ of it is 500 km .
(d) $70 \%$ of it is 14 minutes. (e) $8 \%$ of it is 40
litres.
5. Find:(a) $15 \%$ of 250 (b) $1 \%$ of 1 hour (c) $20 \%$ of Rs 2500 (d) $75 \%$ of 1 kg

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6. In a city, $30 \%$ are females, $40 \%$ are males and remaining are children. What per cent are children
7. Convert given per cents to decimal fractions and also to fractions in simplest forms:
(a) $25 \%$ (b) $150 \%$ (c) $20 \%$ (d) $5 \%$

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8. Meeta saves Rs 400 from her salary. If this is
$10 \%$ of her salary. What is her salary?

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9. Out of 15,000 voters in a constituency, $60 \%$
voted. Find the percentage of voters who did
not vote. Can you now find how many actually did not vote?

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10. A local cricket team played 20 matches in
one season. It won $25 \%$ of them. How many matches did they win?

## Solved Examples

1. Convert the given decimals to per cents:
(a) 0.75
(b) 0.09
(c) 0.2

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2. What per cent of the adjoining figure is shaded?
3. A survey of 40 children showed that $25 \%$
liked playing football. How many children liked
playing football
A. 10
B. 20
C. 30
D. 40
4. Rahul bought a sweater and saved Rs 20 when a discount of $25 \%$ wasgiven. What was the price of the sweater before the discount?

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5. Reena's mother said, to make idlis, you must take two parts rice andone part urad dal. What
percentage of such a mixture would be riceand what percentage would be urad dal?

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6. If Rs 250 is to be divided amongst Ravi, Raju and Roy, so that Ravigets two parts, Raju three parts and Roy five parts. How much moneywill each get? What will it be in percentages?
7. A school team won 6 games this year against 4 games won last year. What is the per cent increase?

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8. The number of illiterate persons in a country decreased from 150 lakhs to 100 lakhs in 10 years. What is the percentage of decrease?
9. The cost of a flower vase is Rs 120 . If the shopkeeper sells it at a loss of $10 \%$, find the price at which it is sold.

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10. Selling price of a toy car is Rs. 540. If the profit made by shop keeper is $20 \%$, what is the cost price of this toy?
11. Write $\frac{5}{4}$ as percent

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12. The car that I own can go 150 km with 25
litres of petrol. How far can it go with 30 litres of petrol?
A. 180 km
B. 150 km
C. 160 km
D. 140 km

Answer: A

## D Watch Video Solution

13. 6 bowls cost Rs. 90. What would be the cost of 10 such bowls?

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14. A map is given with a scale of
$2 \mathrm{~cm}=1000 \mathrm{~km}$. What is the actual distance between the two places in kms, if the distance in the map is 2.5 cm ?

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15. Following is the performance of a cricket team in the matches it played:

In which year was the record better?

How can you say so?

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16. Are the ratios $1: 2$ and $2: 3$ equivalent?

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17. Find the ratio of 3 km to 300 m .

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18. If Manohar pays an interest of Rs. 750 for 2
years on a sum of Rs. 4,500, find the rate of interest.

## D Watch Video Solution

19. Anita takes a loan of Rs. 5,000 at $15 \%$ per
year as rate of interest. Find the interest she
has to pay at end of one year.

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20. Convert $\frac{1}{3}$ to per cent

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21. Out of 25 children in a class, 15 are girls.

What is the percentage of girls?

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