

# Fractions, Decimals and Percentages — 1

To write percentages as fractions, just put the percentage as the numerator and 100 as the denominator.  
To write percentages as decimals, all you have to do is divide by 100.

## Examples

Write 9% as a decimal.

$$9\% = 9 \div 100 = 0.09$$

Yusuf got 60% of the marks on his science test.  
What fraction of the marks did he get?

$$60\% = \frac{60}{100} \text{ or } \frac{6}{10} \text{ or } \frac{3}{5}$$

## Set A

Write these percentages as fractions with a denominator of 100.

- 1 10%
- 2 30%
- 3 50%
- 4 15%
- 5 75%
- 6 95%

Write these percentages as decimals:

- 7 10%
- 8 25%
- 9 45%
- 10 70%
- 11 90%
- 12 82%

13 Match each percentage to an equivalent amount.

100%	$\frac{80}{100}$
40%	0.35
35%	1
20%	$\frac{20}{100}$
80%	0.4

## Set B

Find the missing numbers to write these percentages as fractions:

- 1  $17\% = \frac{\quad}{100}$
- 2  $61\% = \frac{\quad}{100}$
- 3  $94\% = \frac{\quad}{100} = \frac{\quad}{50}$
- 4  $70\% = \frac{\quad}{100} = \frac{\quad}{10}$
- 5  $20\% = \frac{\quad}{100} = \frac{\quad}{5}$

Are the following statements true or false?

- 6  $10\% = 0.1$
- 7  $90\% = \frac{9}{100}$
- 8  $45\% = 0.54$
- 9  $70\% = 0.07$
- 10  $25\% = \frac{1}{4}$
- 11  $8\% = 0.8$

12 Find the equivalent fractions and decimals in this table:

Percentage	35%	48%	78%
Fraction			
Decimal			

39% of Lola's jumpers are knitted.  
What fraction of her jumpers:

- 13 are knitted?
- 14 are not knitted?

## Set C

Find the missing numbers to write these percentages as fractions:

- 1  $37\% = \frac{\quad}{100}$
- 2  $90\% = \frac{\quad}{10}$
- 3  $38\% = \frac{\quad}{50}$
- 4  $60\% = \frac{\quad}{5}$
- 5  $80\% = \frac{\quad}{5}$

Are the following statements true or false?

- 6  $4\% = 0.04$
- 7  $97\% = \frac{97}{100}$
- 8  $23\% = 2.3$
- 9  $58\% = \frac{27}{50}$
- 10  $84\% = 0.84$
- 11  $15\% = \frac{3}{20}$

12 Nev's hamster has eaten 34% of its food. Nev says, "My hamster has eaten  $\frac{17}{50}$  of its food." Is he correct? Explain your answer.

13 Nadya has 1 m of string. She uses 43% to tie up a parcel and 0.4 m to hang a picture frame. How many metres of string does she have left?

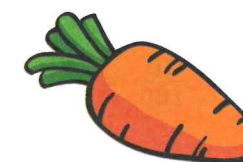
# Fractions, Decimals and Percentages — 2

To write fractions as percentages, make sure the fraction has 100 on the bottom — the number on top is the percentage. To write decimals as percentages, just multiply by 100.

## Examples

Write 0.63 as a percentage.

$$0.63 \times 100 = 63\%$$



Holly has eaten  $\frac{7}{10}$  of a carrot.  
What percentage of the carrot has she eaten?

Find an equivalent fraction with 100 as the denominator.  $\frac{7}{10} = \frac{70}{100} = 70\%$

## Set A

Write these decimals as percentages:

- 1 0.25
- 2 0.45
- 3 0.75
- 4 0.95
- 5 0.50
- 6 0.80

Are the following statements true or false?

- 7  $\frac{15}{100} = 5\%$
- 8  $\frac{35}{100} = 35\%$
- 9  $\frac{40}{100} = 40\%$
- 10  $\frac{6}{10} = 65\%$
- 11  $\frac{9}{10} = 9\%$

Ida had a 1 kg block of cheese.

She used  $\frac{7}{100}$  to make some scones.

12 What percentage of the block did she use for scones?

She used 0.15 kg of the 1 kg block to make some cheese sauce.

13 What percentage of the block did she use to make the cheese sauce?

## Set B

Write these decimals as percentages:

- 1 0.12
- 2 0.29
- 3 0.34
- 4 0.55
- 5 0.01
- 6 0.9

Write these fractions as percentages:

- 7  $\frac{27}{100}$
- 8  $\frac{56}{100}$
- 9  $\frac{4}{10}$
- 10  $\frac{1}{2}$
- 11  $\frac{1}{4}$

The visitors to a zoo voted for their favourite animal.

$\frac{1}{5}$  of the visitors voted for the rhino.

12 What percentage of the visitors voted for the rhino?

Twice as many visitors voted for the lion as the rhino.

13 What percentage of the visitors voted for the lion?

## Set C

Write these decimals as percentages:

- 1 0.65
- 2 0.42
- 3 0.03
- 4 0.09
- 5 0.6
- 6 0.8

Which is the correct percentage:

- 7  $\frac{16}{100} = 16\%$  or  $6\%$ ?
- 8  $\frac{3}{10} = 3\%$  or  $30\%$ ?
- 9  $\frac{1}{2} = 50\%$  or  $20\%$ ?
- 10  $\frac{3}{4} = 75\%$  or  $25\%$ ?
- 11  $\frac{4}{5} = 60\%$  or  $80\%$ ?

12  $\frac{7}{20}$  of Lizzi's friends have a brother or a sister. What percentage is this?

Eli got some money for his birthday. He spent  $\frac{2}{5}$  of it and saved the rest. What percentage of the money did he:

- 13 spend?
- 14 save?

