



Percentages

CAPS: Grade 6, Term 3

Number Operations and Relationships

Percentages: Calculations - find percentages of whole numbers

Note

Remember:

A percentage is a different way of writing a common fraction with a denominator of 100.

E.g. $\frac{50}{100} = 50\%$; $\frac{2}{100} = 2\%$

To work out the percentage of an amount is therefore the same as working out a fraction of an amount.

E.g. 50% of 60 is the same as

$\frac{50}{100}$ of 60

You therefore need to find out exactly how much 50 hundredths of 60 is.

This means you would divide 60 into a hundred parts and take 50 of those hundredths.

You could write it like this:

$$60 \div 100 \times 50 = \frac{60}{100} \times 50 = \frac{6}{10} \times \frac{50}{1} = \frac{300}{10} = 30$$

Therefore 50% of 60 is 30.

This is the same as saying:

$$\frac{50}{100} \times \frac{60}{1} = \frac{3000}{100} = 30$$

You may have different methods with which to work this out. You may use a variety of methods to calculate percentages of amounts.

Activity 1

Write the following common fractions as percentages.

(a) $\frac{5}{20}$ $\frac{5}{20} = \frac{5}{100 \div 2} = \frac{20}{100} = \frac{100}{5}$ 5% of 20 is 1. (b) $\frac{65}{100}$ _____.

(c) $\frac{18}{100}$ _____. (d) $\frac{3}{100}$ _____.



e $\frac{99}{100}$ _____.

f $\frac{3}{10}$ _____.

g $\frac{6}{10}$ _____.

h $\frac{10}{10}$ _____.

i $\frac{1}{25}$ _____.

j $\frac{5}{100}$ _____.

Activity 2

Calculate.

a $\frac{10}{100}$ of 300 _____.

b 10% of 400 _____.

c $\frac{50}{100}$ of 80 _____.

d 50% of 130 _____.

e 40% of 640 _____.

f 80% of 90 _____.

g 60% of 240 _____.

h 70% of 300 _____.

i 25% of 340 _____.

j 15% of 920 _____.



Activity 3

Solve the following problems involving percentages.

- a** Lisa spent 25% of her pocket money of R160 on a present. How much did the present cost?
- _____
- _____
- _____
- b** 6% of the grade sixes at Westwood Primary school failed an English test. There are 150 grade sixes. How many learners failed?
- _____
- _____
- _____
- c** Mrs Mahote read 40% of her book of 345 pages. Mrs Manga read 30% of her book of 510 pages. Who read the most pages?
- _____
- _____
- _____
- d** Mr Smith budgets 20% of his salary on food every month. He earns R5 600 a month. How much money does he spend on food?
- _____
- _____
- _____
- e** Sihle got 80% of her answers in a test right. The test had 35 questions. How many questions did she get right?
- _____
- _____
- _____

Teacher Tip

Ensure that learners have a solid understanding of fractions and what they mean before teaching percentage and the calculation of a fraction or percentage of a quantity. Allow learners to apply their understanding of fractions and percentages to a method of calculation of their choice instead of focusing on teaching a particular method of working out a percentage of a quantity.

