LO: Calculate a percentage of an amount

## Think Task

## Percentages are always out of 100.

The number 100 is really important when trying to work with percentages.

## LO: Calculate a percentage of an amount

## How to calculate a percentage of an amount

$50 \%$ ~ halve it or divide by 2 You divide 100 by 2 to get 50
$25 \%$ ~ halve it again or divide by 4 You divide 100 by 4 to get 25
$10 \%$ ~ divide by 10 You divide 100 by 10 to get 10
$5 \%$ ~ halve $10 \%$ or divide by 20 You divide 100 by 20 to get 5

1\% ~ divide by 100 You divide 100 by 100 to get 1
You might want to make notes on this page

LO: Calculate a percentage of an amount

## Let's practice

## 160

```
50% = 80
25% = _ 40
10% = _ 16
5% = 8
1% = 1.6
```

LO: Calculate a percentage of an amount
Now you try


## 540

$$
\begin{aligned}
& 50 \%= \\
& 25 \%= \\
& 10 \%= \\
& 5 \%= \\
& 1 \%=
\end{aligned}
$$

LO: Calculate a percentage of an amount

## Answers

$$
\begin{array}{r}
240 \\
50 \%=\frac{120}{} \\
25 \%=60 \\
10 \%=24 \\
5 \%=2 \\
1 \%=2.4
\end{array}
$$

## 540

$$
50 \%=270
$$

$$
25 \%=135
$$

$$
10 \%=54
$$

$5 \%=\underline{27}$
$1 \%=5.4$

## LO: Calculate a percentage of an amount

## What about these?

240
What is $30 \%$ of 240 ?

Method 1
Method 2

$$
50 \%=120
$$

$25 \%=\underline{60}$
$10 \%=24 \quad 25 \%=60$
$+10 \%=24$
$+5 \%=12$
$+10 \%=24$
$30 \%=72$
$30 \%=72$

There are lots of different ways to make 30\%
$1 \%=\underline{2.4}$ Can you think of any others?

## LO: Calculate a percentage of an amount

## What about these?

## 240

What is $45 \%$ of 240 ?
Method 1
Method 2

$$
\begin{array}{ll}
50 \% & =120 \\
25 \% & =-60
\end{array} \begin{array}{r}
10 \%=24 \\
+10 \%=24 \\
+10 \%=24 \\
+10 \%=24 \\
+5 \%=12
\end{array}
$$

$$
5 \%=12
$$

There are lots of different ways to make 45\%

$$
1 \%=2.4
$$ Can you think of any others?

## LO: Calculate a percentage of an amount

## What about these?

## 240

## What is $8 \%$ of 240 ?

Method 1

$$
\begin{aligned}
& 50 \%=+120 \\
& 25 \%=-60 \\
& 10 \%=-24 \\
& 5 \%=12 \%=12 \\
& +1 \%=2.4 \\
& +1 \%=2.4 \\
& +1 \%
\end{aligned} \quad \begin{aligned}
& 5 \%=19.2
\end{aligned}
$$

Method 2

$$
\begin{aligned}
10 \% & =24 \\
-1 \% & =2.4 \\
-1 \% & =2.4 \\
\hline 8 \% & =19.2
\end{aligned}
$$

$1 \%=\quad 2.4$

There are lots of different ways to make 8\% Can you think of any others?

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## Now you try

a) What is $20 \%$ of 70
b) What is $80 \%$ of 70
c) What is $65 \%$ of 180
d) What is $87 \%$ of 180
c) What is $65 \%$ of 180
d) What is $87 \%$ of 180
e) What is $3 \%$ of 120
f) What is $12.5 \%$ of 120

## Work out 50\%, 25\%, $10 \%, 5 \%$ and $1 \%$ first.

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## Answers

a) 14
b) 56
c) 117
d) 156.6
e) 3.6
f) 15

## Work out 50\%, 25\%, $10 \%$, $5 \%$ and $1 \%$ first.

