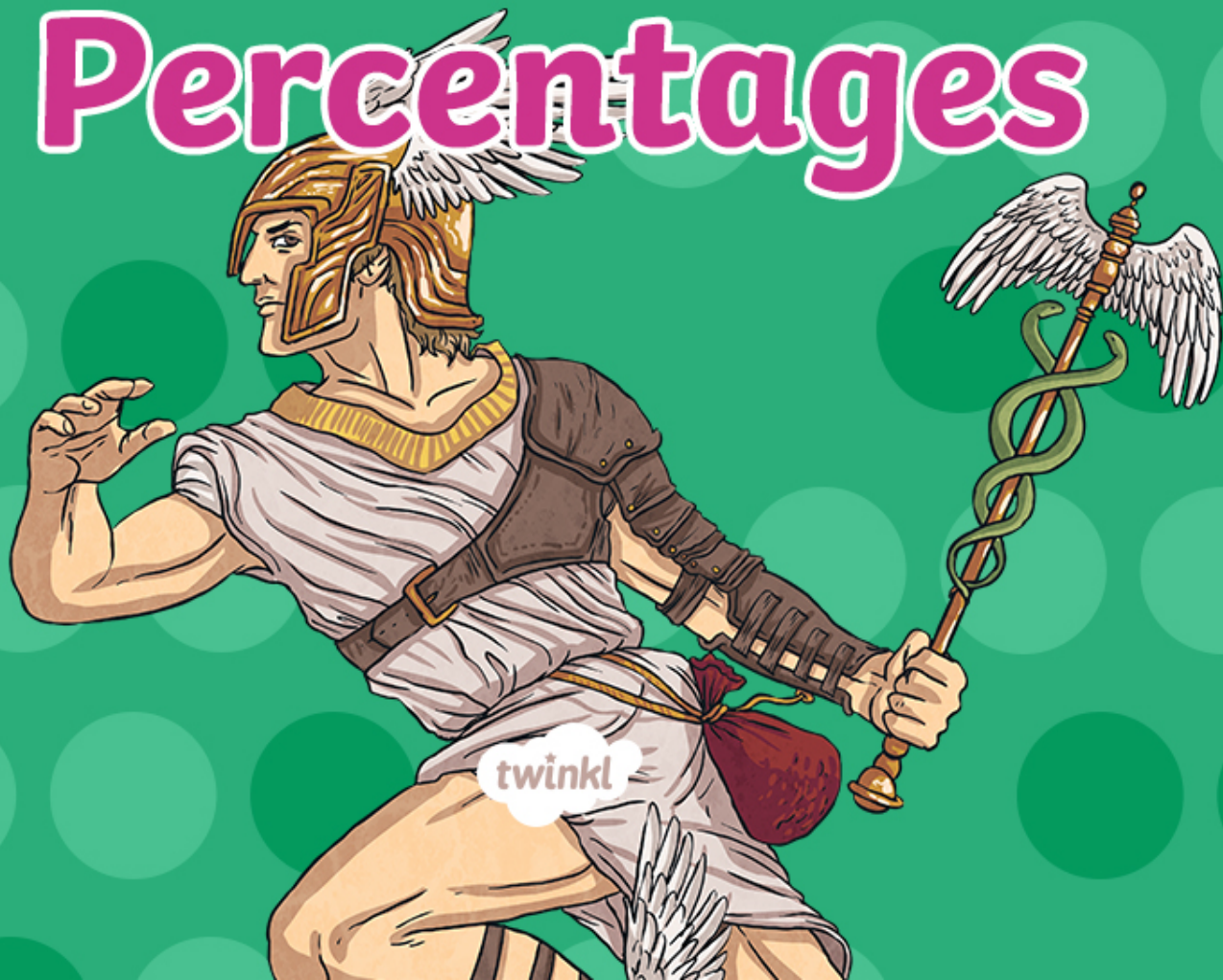
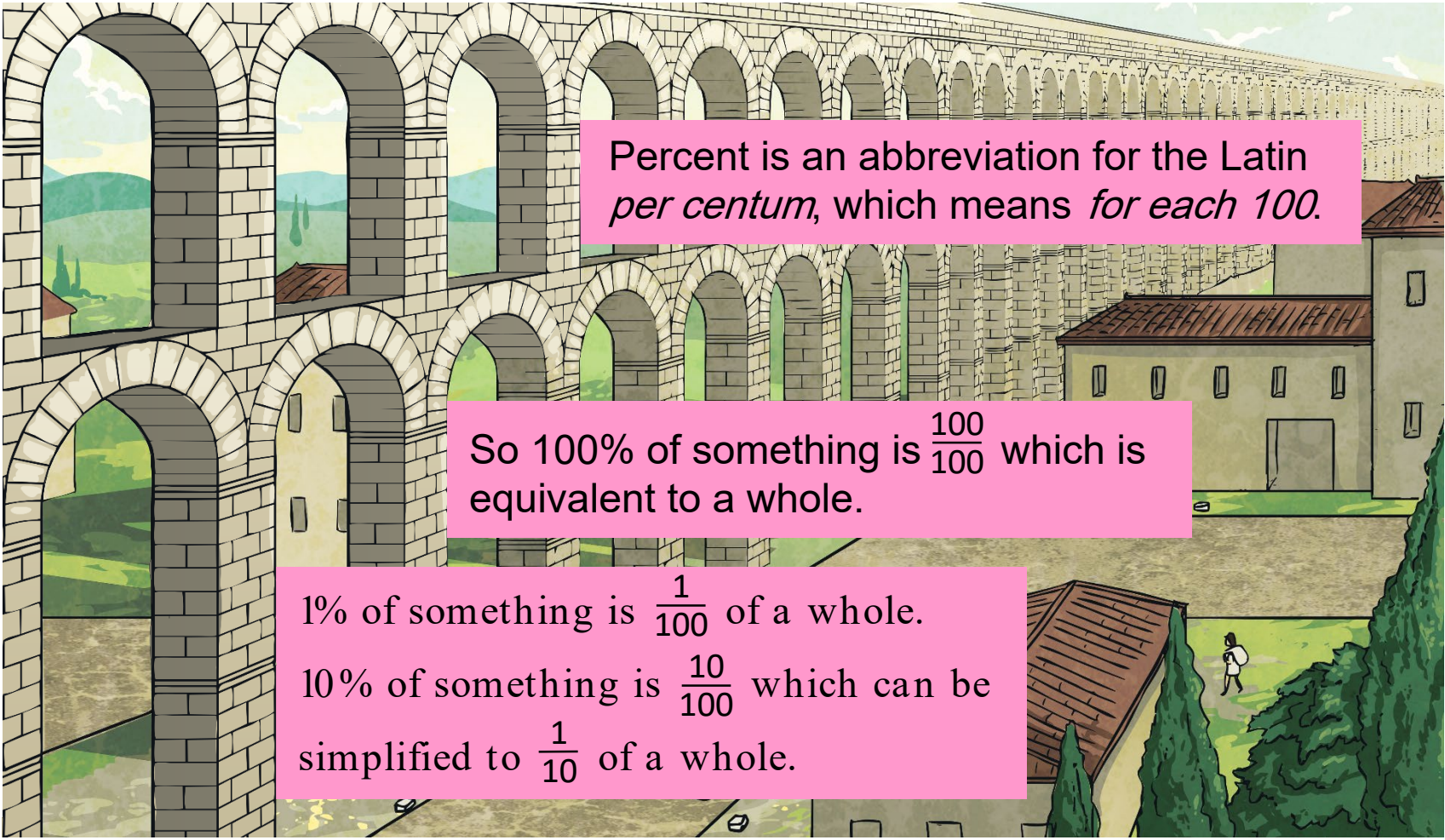


Finding Percentages



What Do We Mean by Percent?



Percent is an abbreviation for the Latin *per centum*, which means *for each 100*.

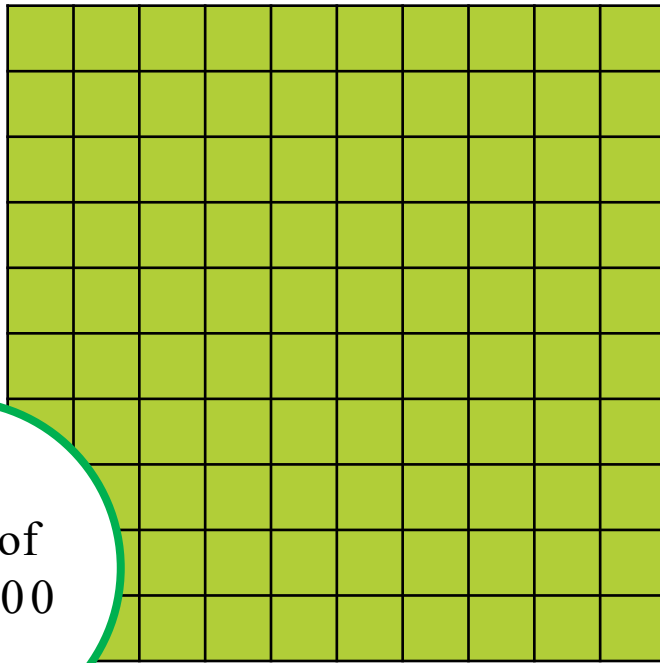
So 100% of something is $\frac{100}{100}$ which is equivalent to a whole.

1% of something is $\frac{1}{100}$ of a whole.

10% of something is $\frac{10}{100}$ which can be simplified to $\frac{1}{10}$ of a whole.

What Do We Mean by Percent?

100% of something is $\frac{100}{100}$
which is equivalent to a whole.



100% of
100 is 100

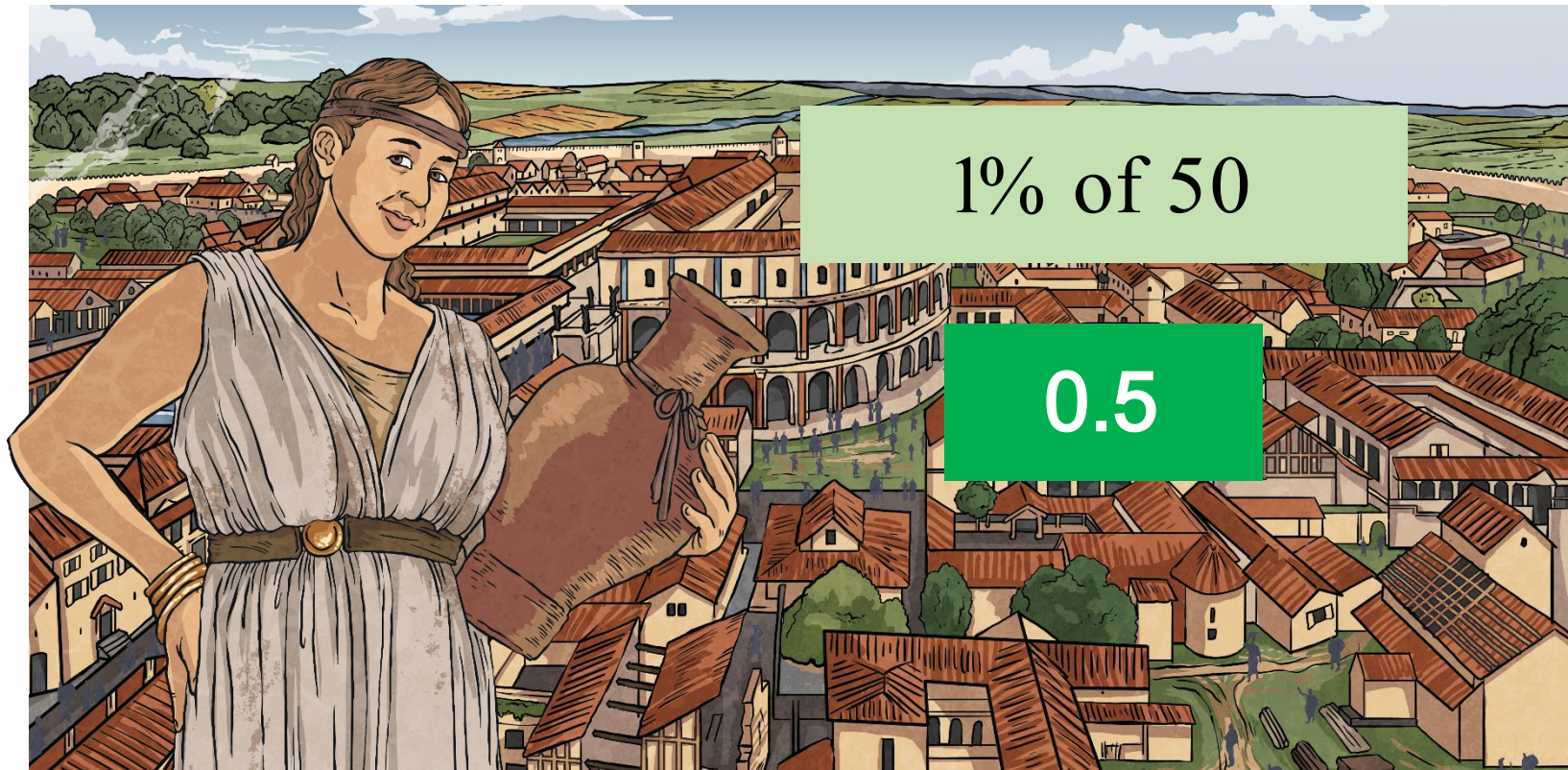


Calculating Percentages



To find 1% of something, what calculation do you need to do?

Divide by 100



1% of 50

0.5

Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



10% of 300

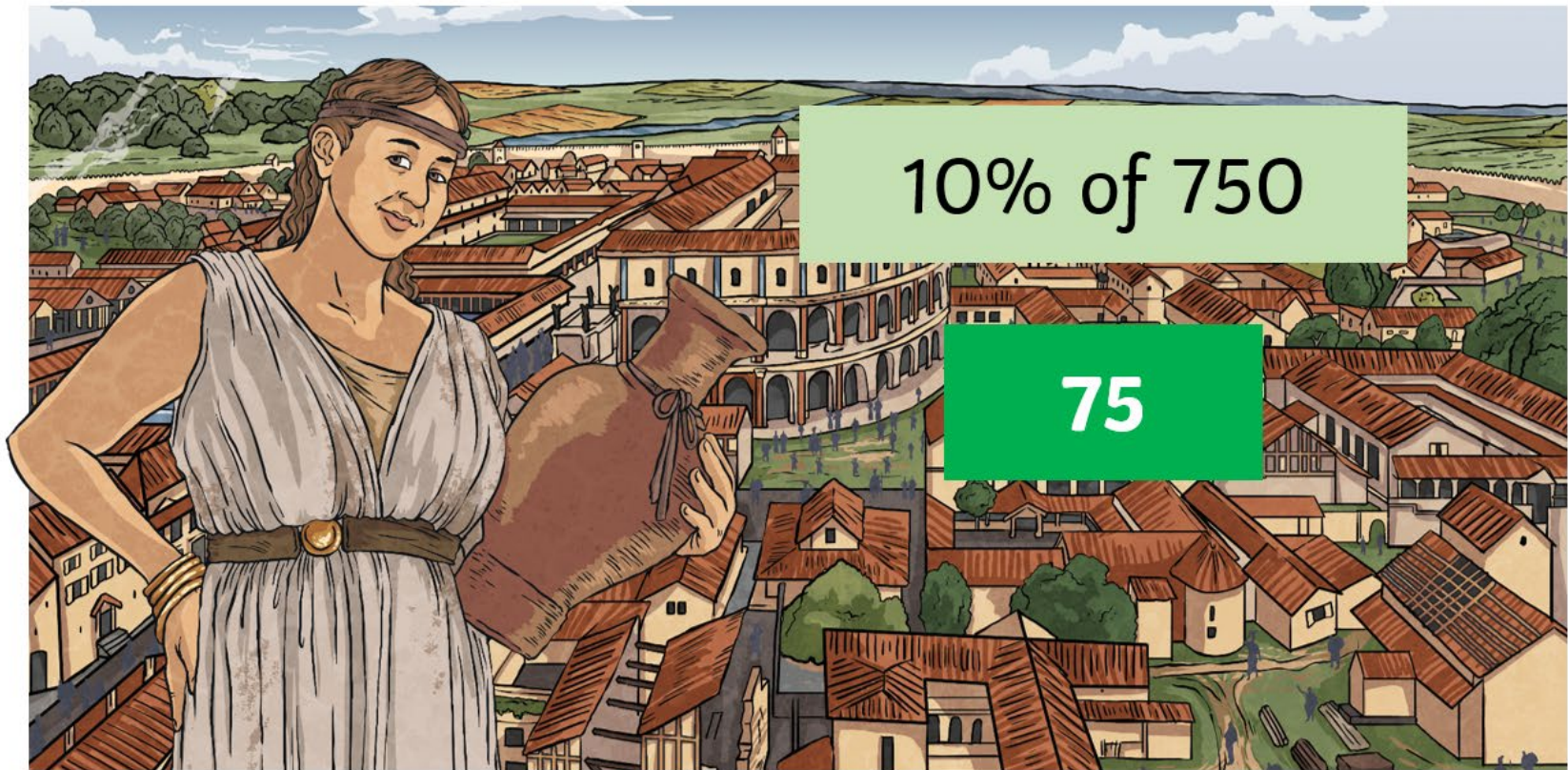
30

Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



10% of 750

75

Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



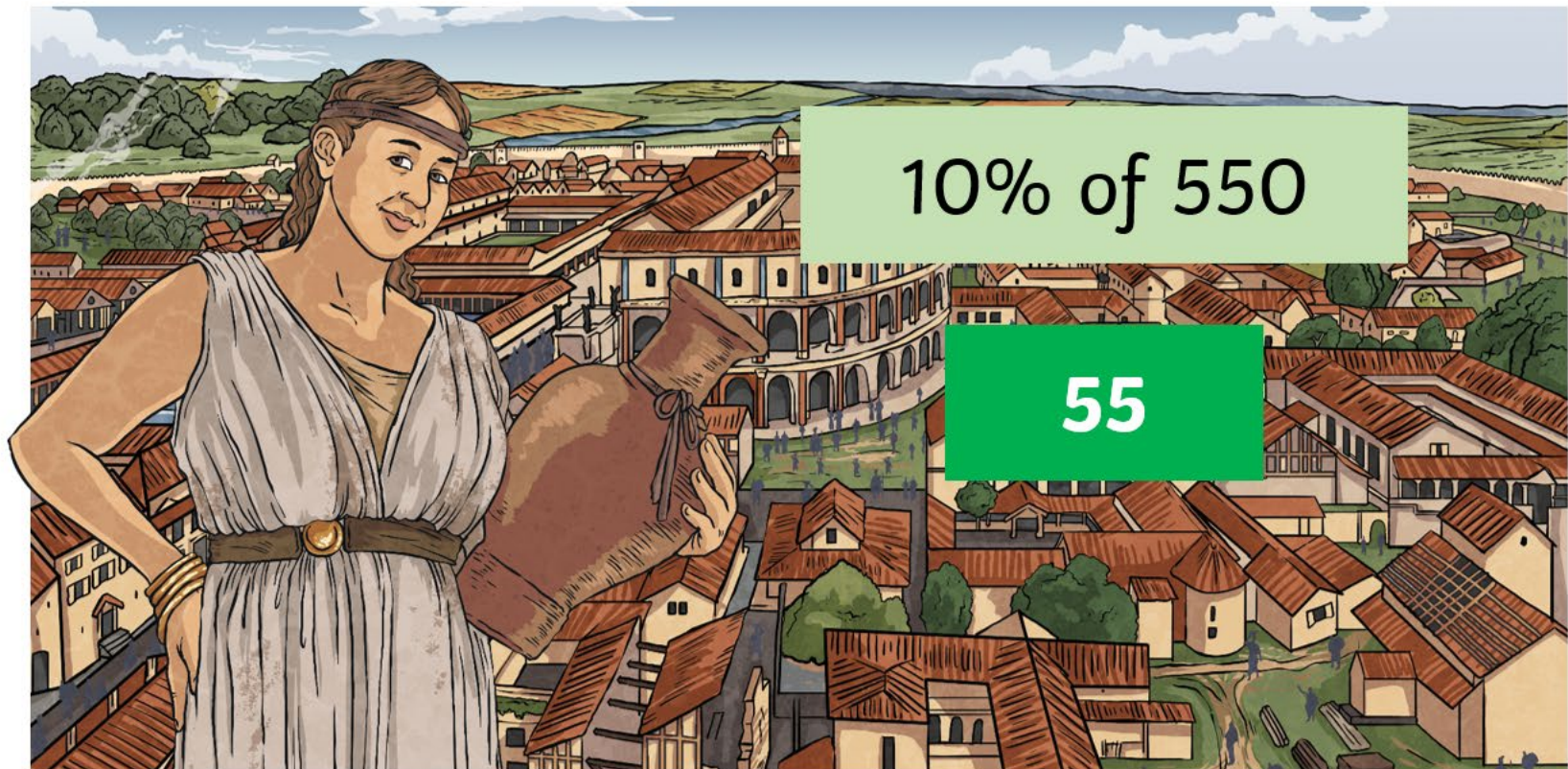
10% of 550

Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



Calculating Percentages



To find 10% of something, what calculation do you need to do?

Divide by 10



10% of 67

6.7

Calculating Percentages

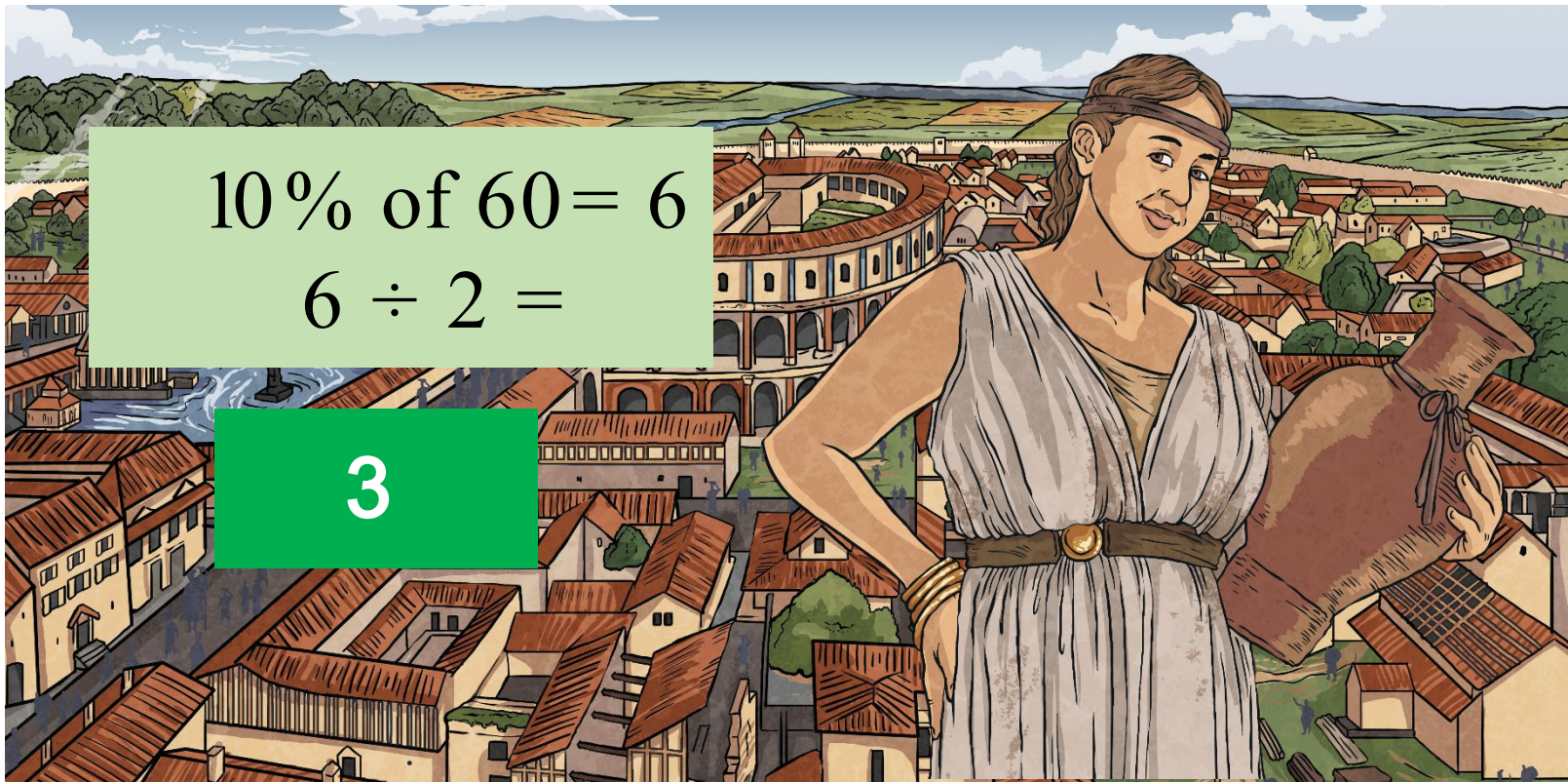


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 60 = 6$$
$$6 \div 2 =$$

3



Calculating Percentages

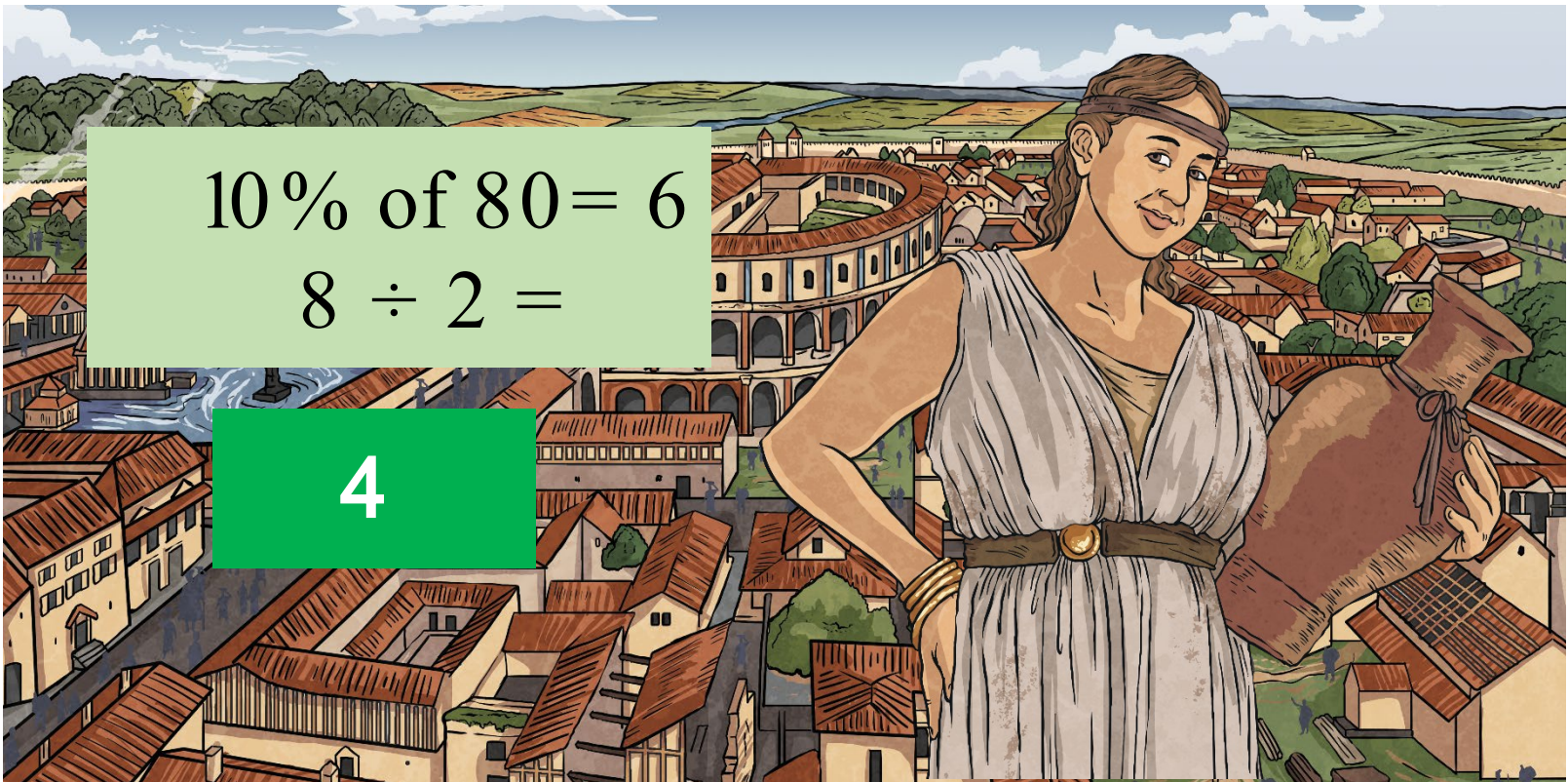


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 80 = 8$$
$$8 \div 2 =$$

4



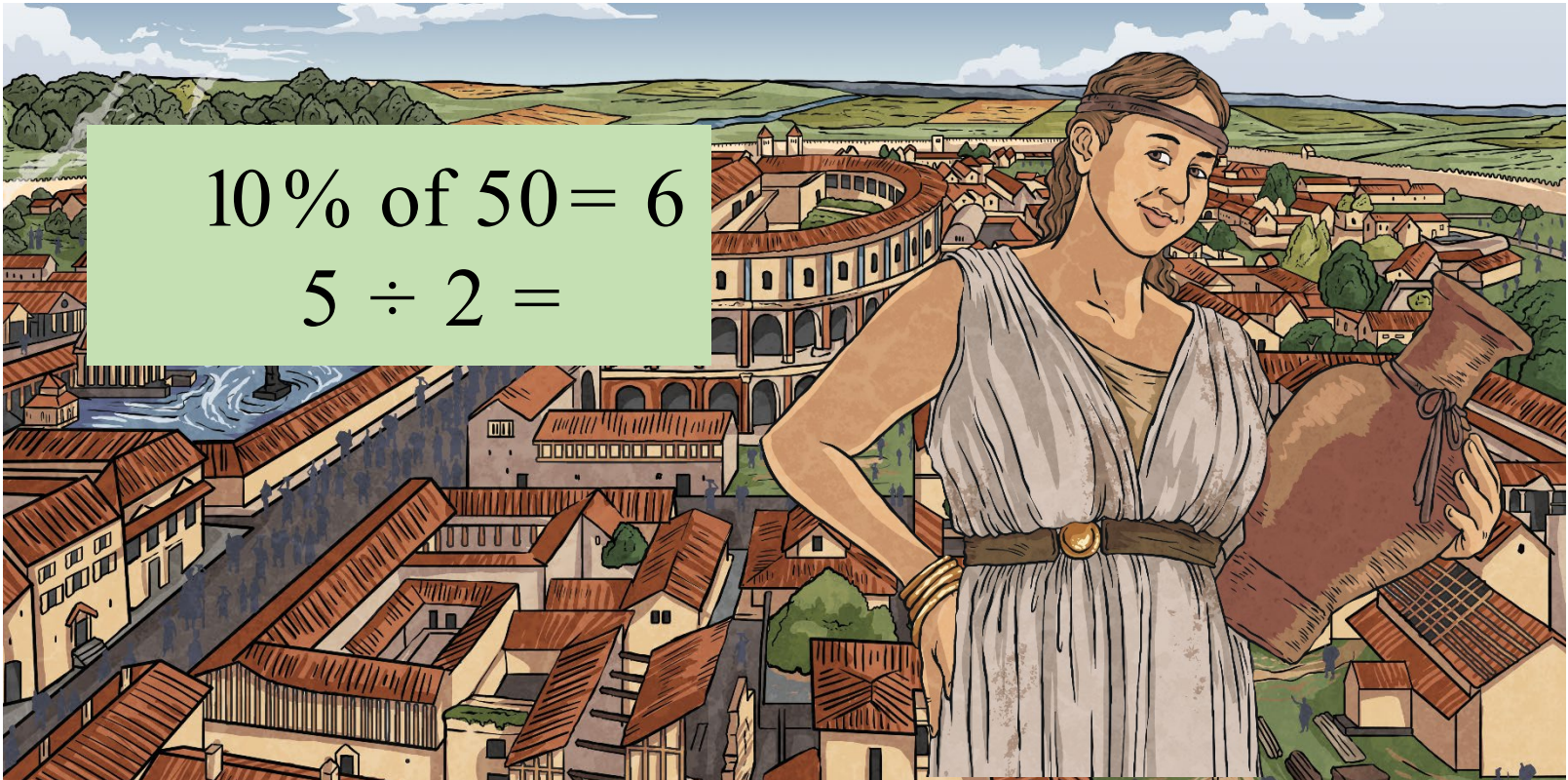
You try...



To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$\begin{aligned} 10\% \text{ of } 50 &= 6 \\ 5 \div 2 &= \end{aligned}$$



You try...

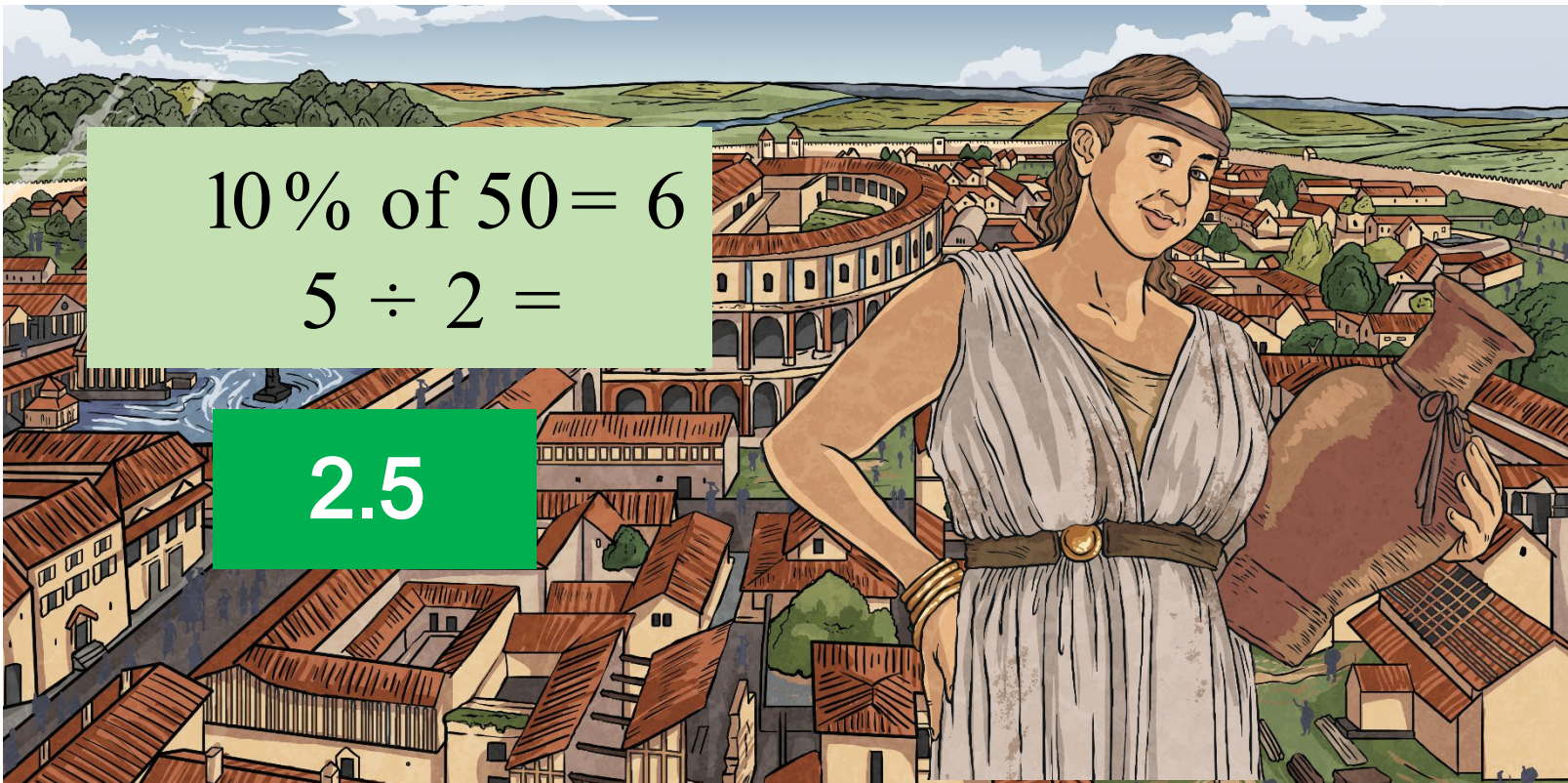


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 50 = 6$$
$$5 \div 2 =$$

2.5



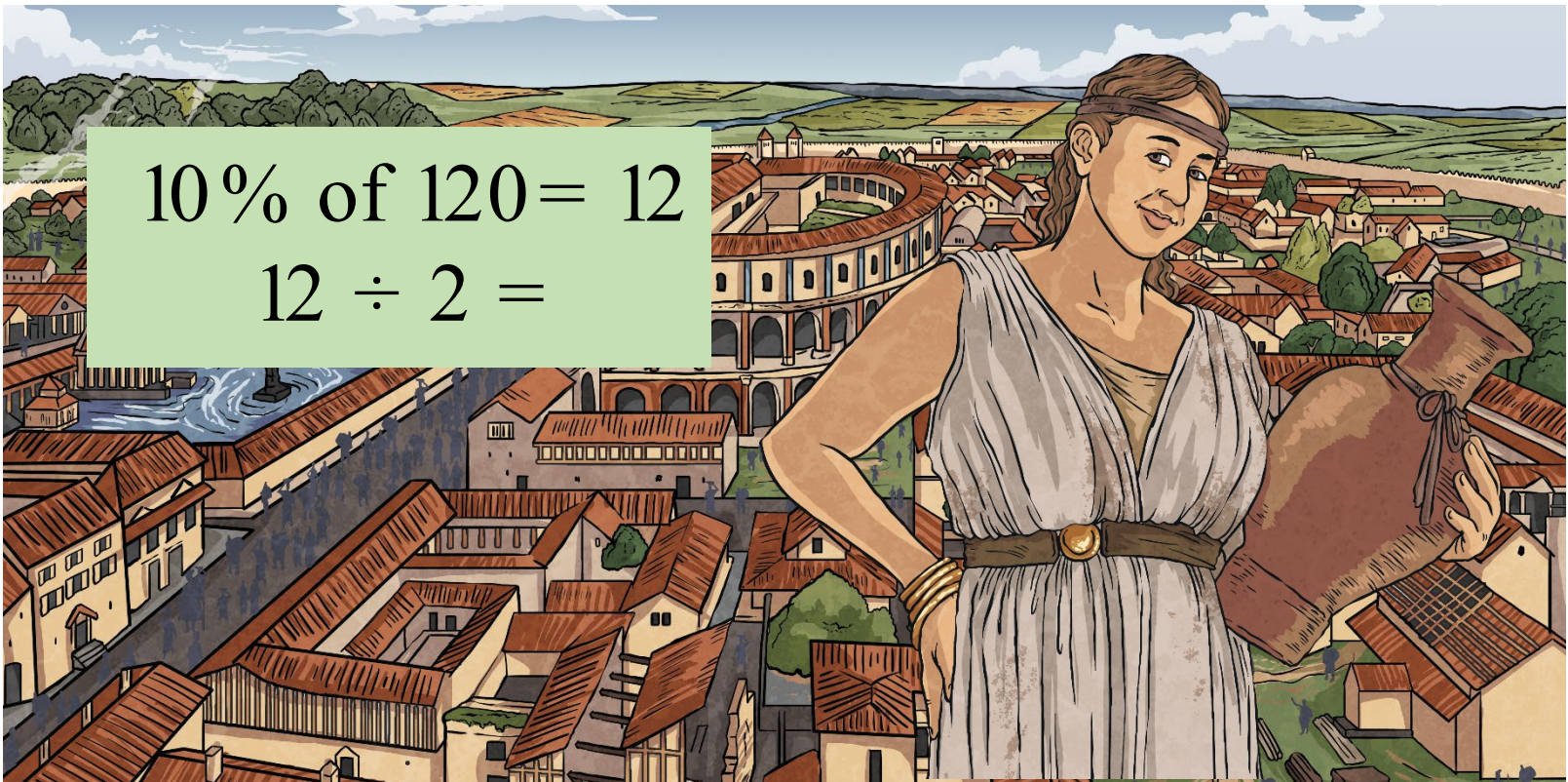
You try...



To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$\begin{aligned} 10\% \text{ of } 120 &= 12 \\ 12 \div 2 &= \end{aligned}$$



You try...

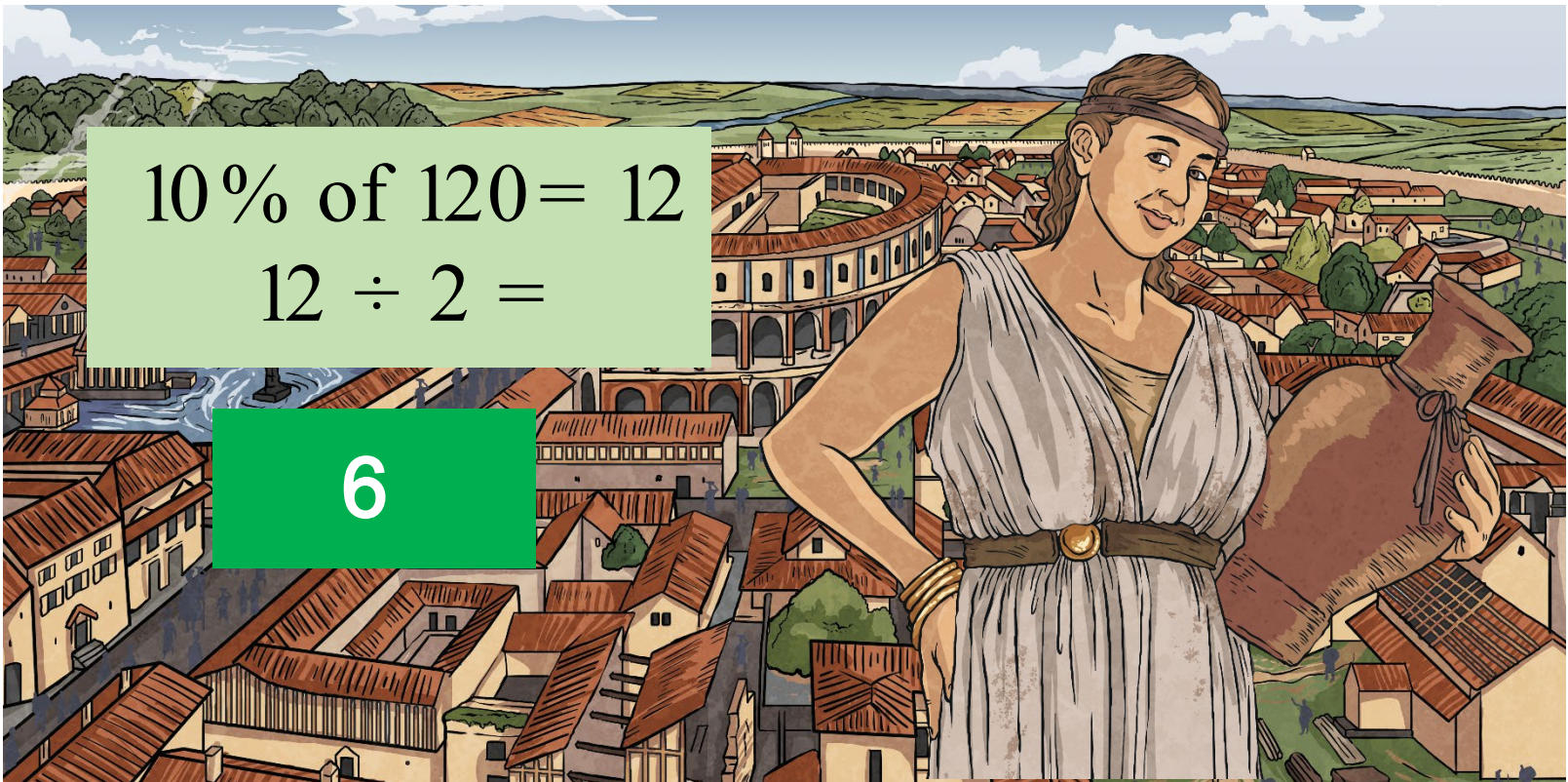


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 120 = 12$$
$$12 \div 2 =$$

6



You try...

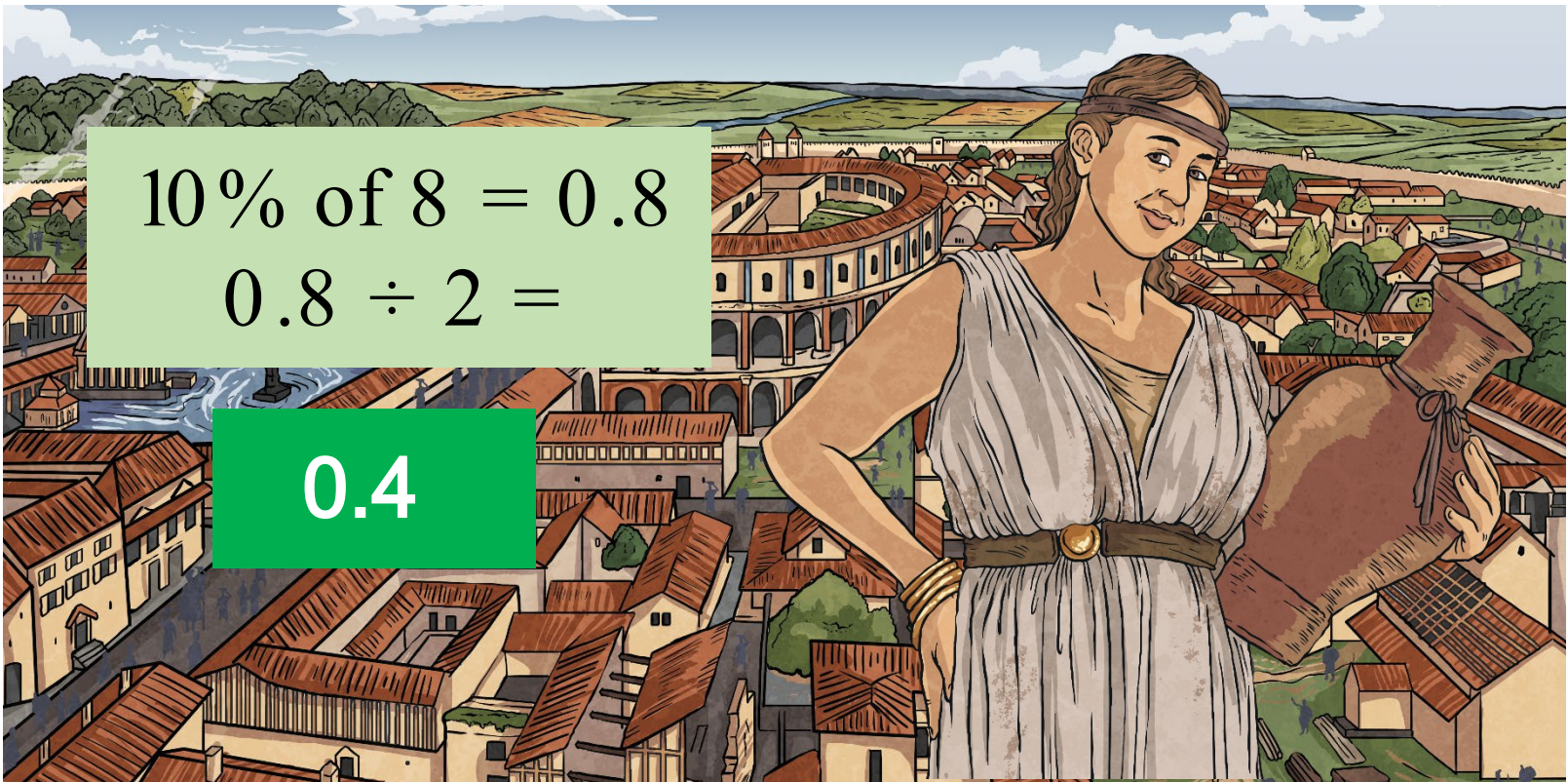


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 8 = 0.8$$
$$0.8 \div 2 =$$

0.4



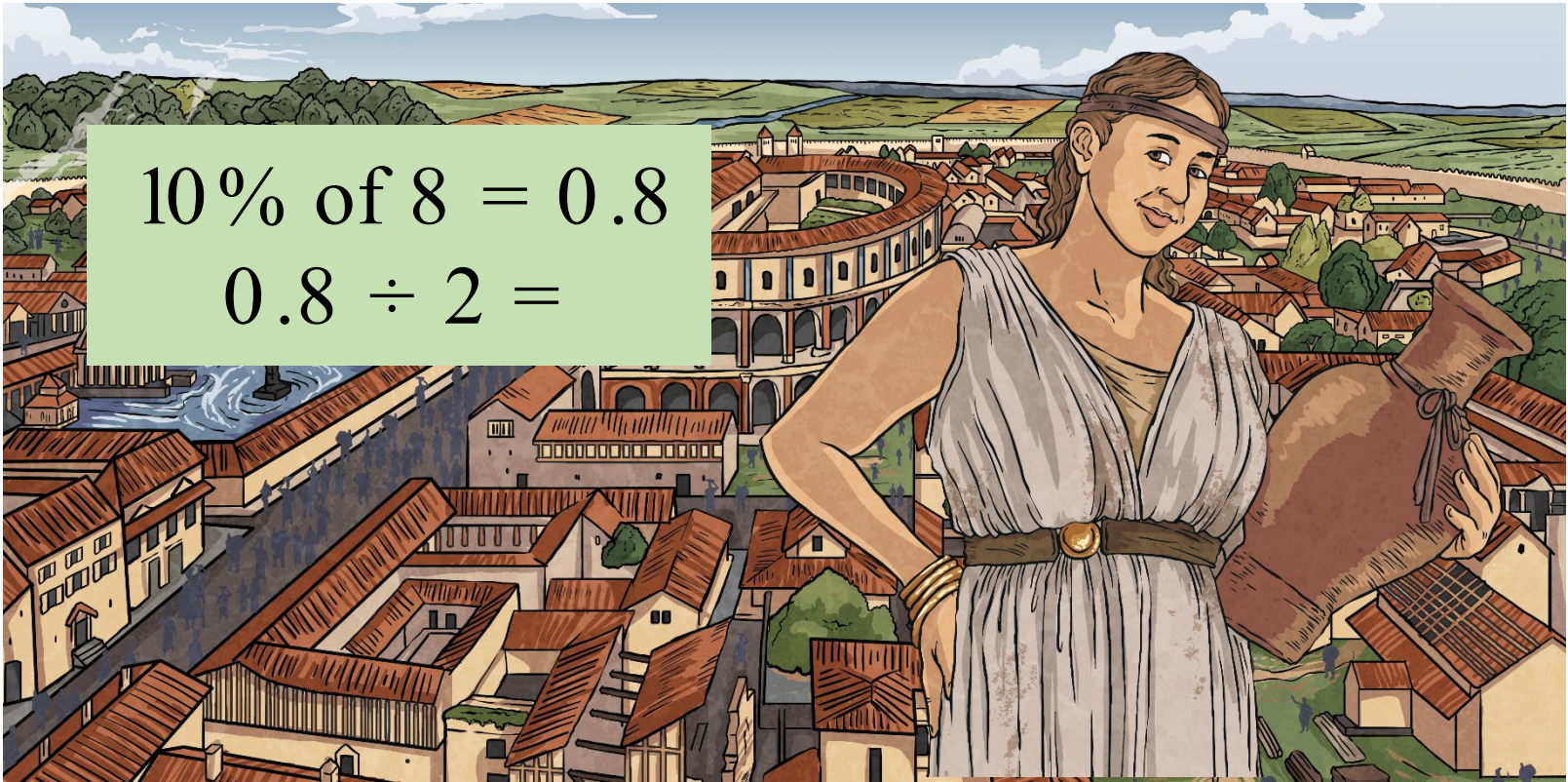
You try...



To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } 8 = 0.8$$
$$0.8 \div 2 =$$



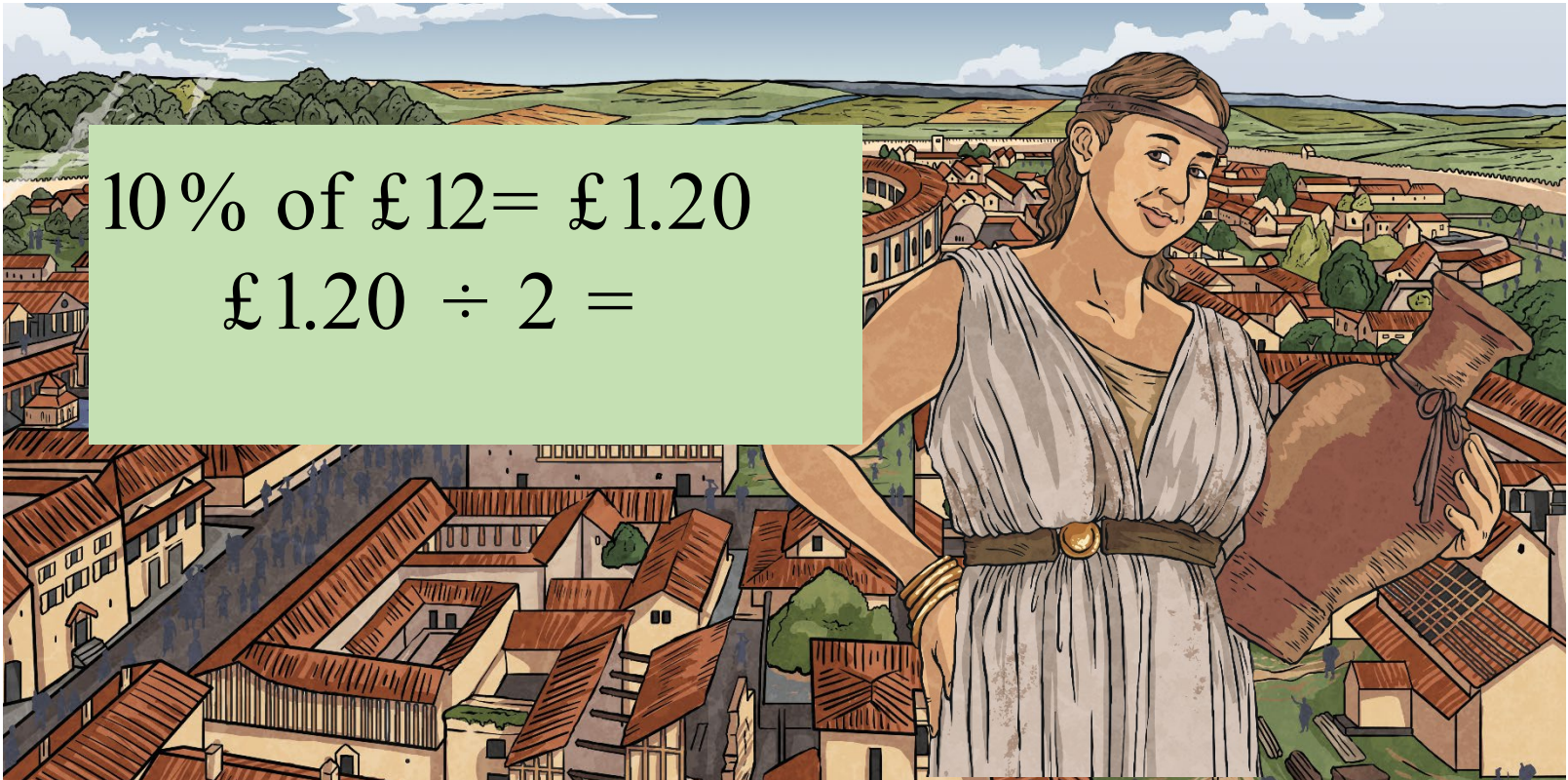
You try...



To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } £12 = £1.20$$
$$£1.20 \div 2 =$$



You try...

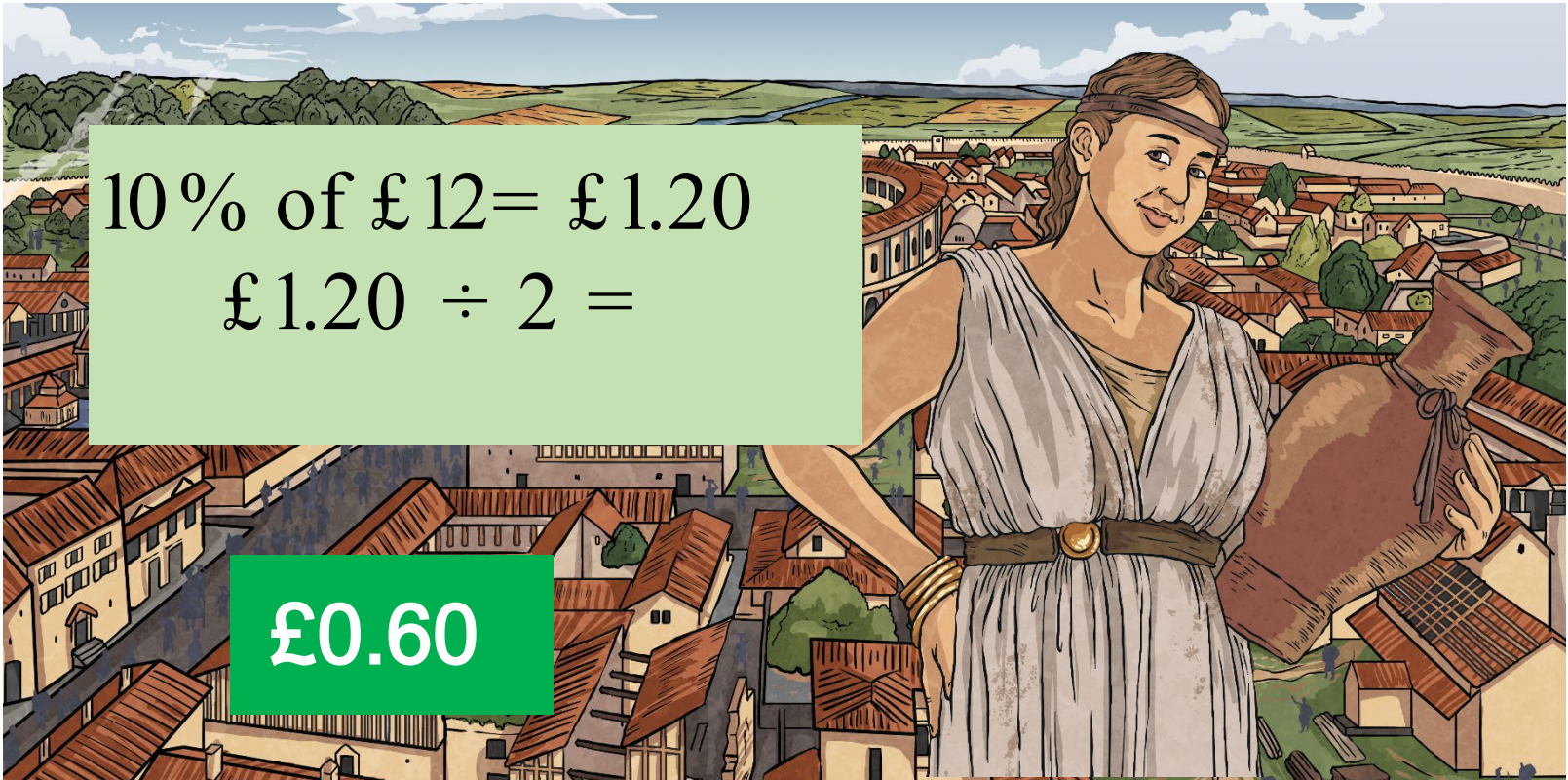


To find 5% of something, what calculation do you need to do?

Divide by 10 and halve your answer

$$10\% \text{ of } £12 = £1.20$$
$$£1.20 \div 2 =$$

£0.60



Calculating Percentages



Knowing how to calculate 10% and 1% are important to help how to calculate other percentages, for instance to calculate 5%, you could:

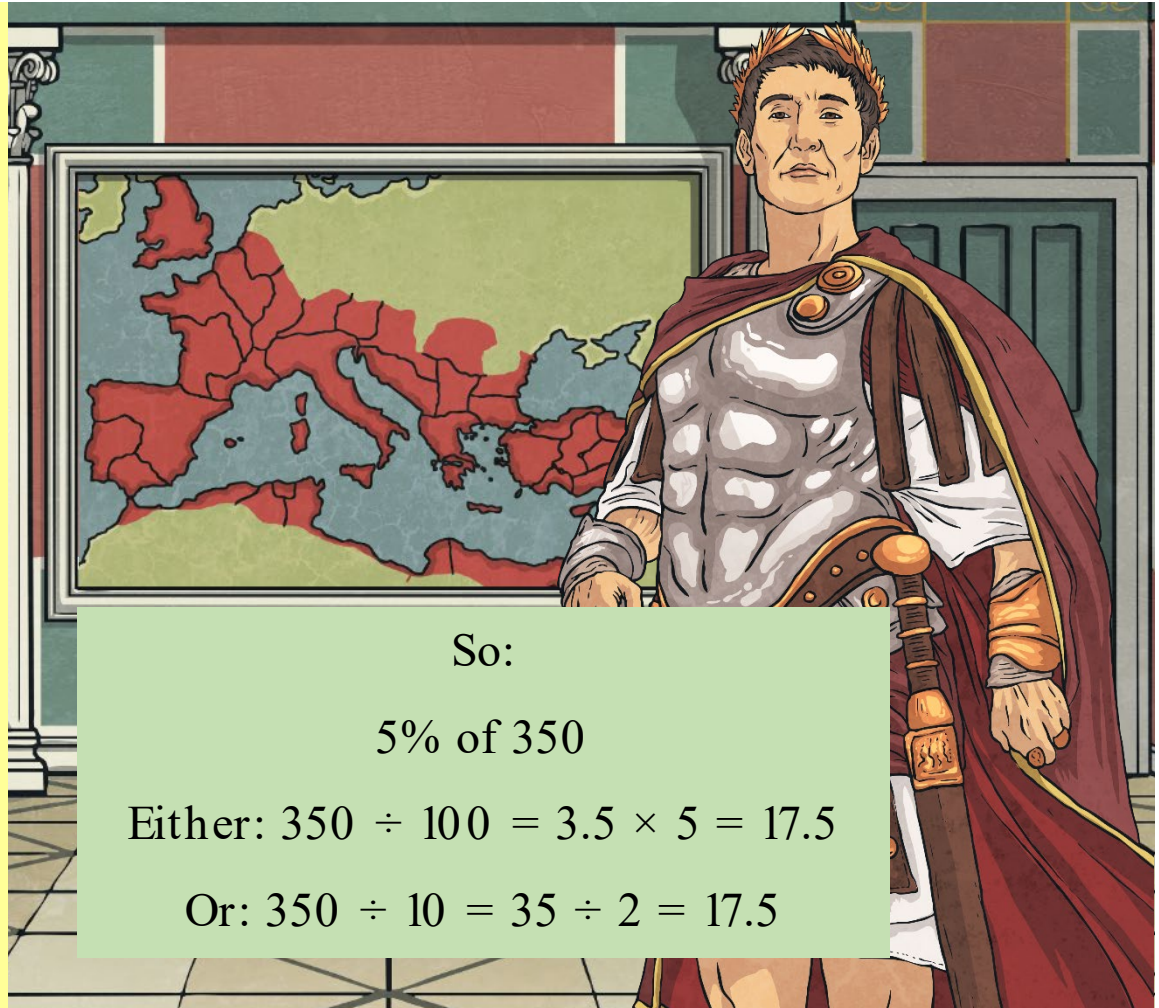
- Find 1%, then multiply this by 5
- Find 10% and halve this

So:

5% of 350

Either: $350 \div 100 = 3.5 \times 5 = 17.5$

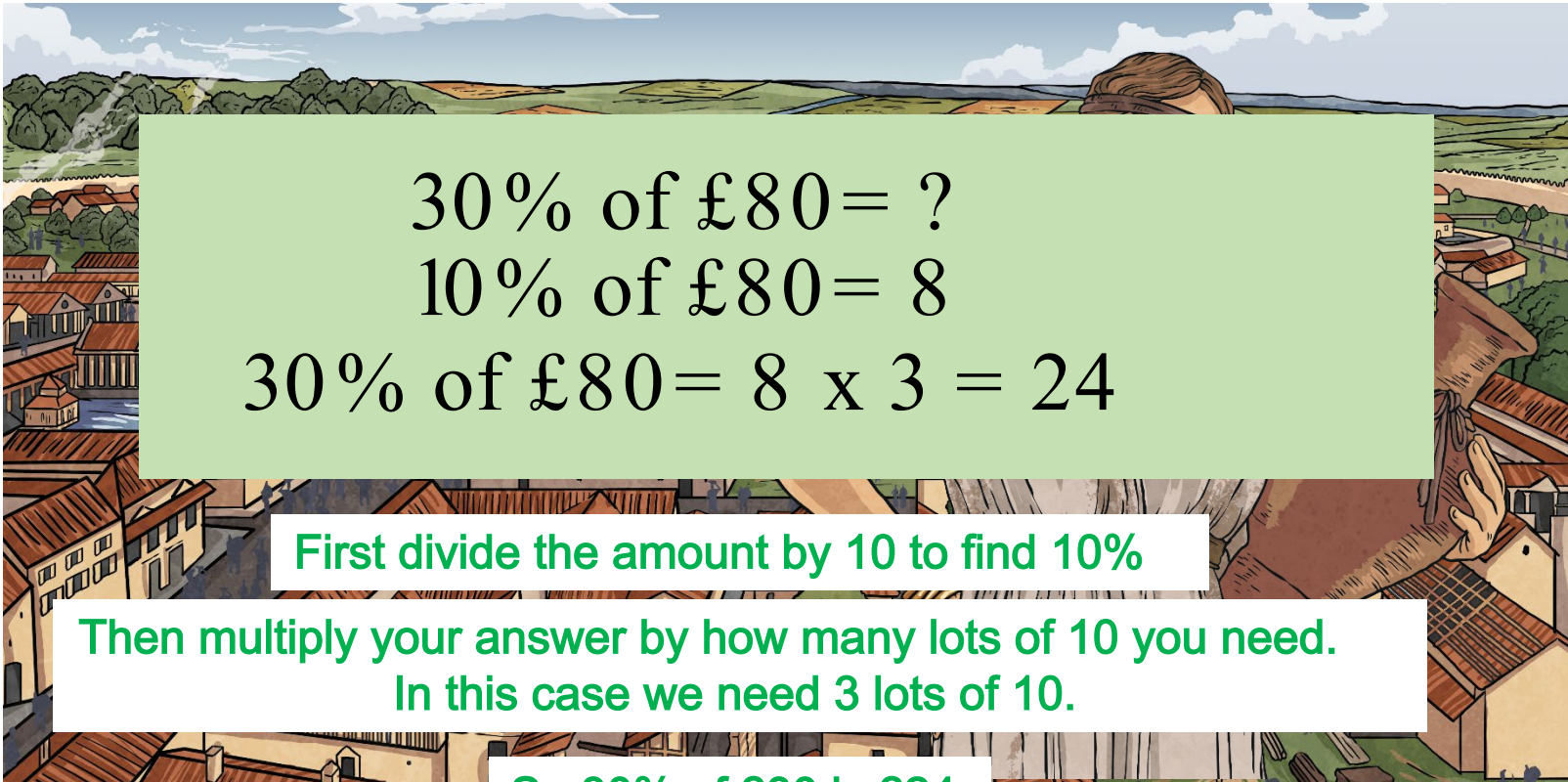
Or: $350 \div 10 = 35 \div 2 = 17.5$



Calculating Percentages



To find a percentage of something, what calculation do you need to do?


$$\begin{aligned}30\% \text{ of } £80 &= ? \\10\% \text{ of } £80 &= 8 \\30\% \text{ of } £80 &= 8 \times 3 = 24\end{aligned}$$

First divide the amount by 10 to find 10%

Then multiply your answer by how many lots of 10 you need.
In this case we need 3 lots of 10.

So 30% of £80 is £24

You try...



To find a percentage of something, what calculation do you need to do?

A detailed illustration of a medieval town with red-tiled roofs, a river, and rolling hills in the background. A person in a white robe with a gold belt is visible in the foreground, looking out over the town.

$60\% \text{ of } £70 =$
 $10\% \text{ of } £70 =$

You try...

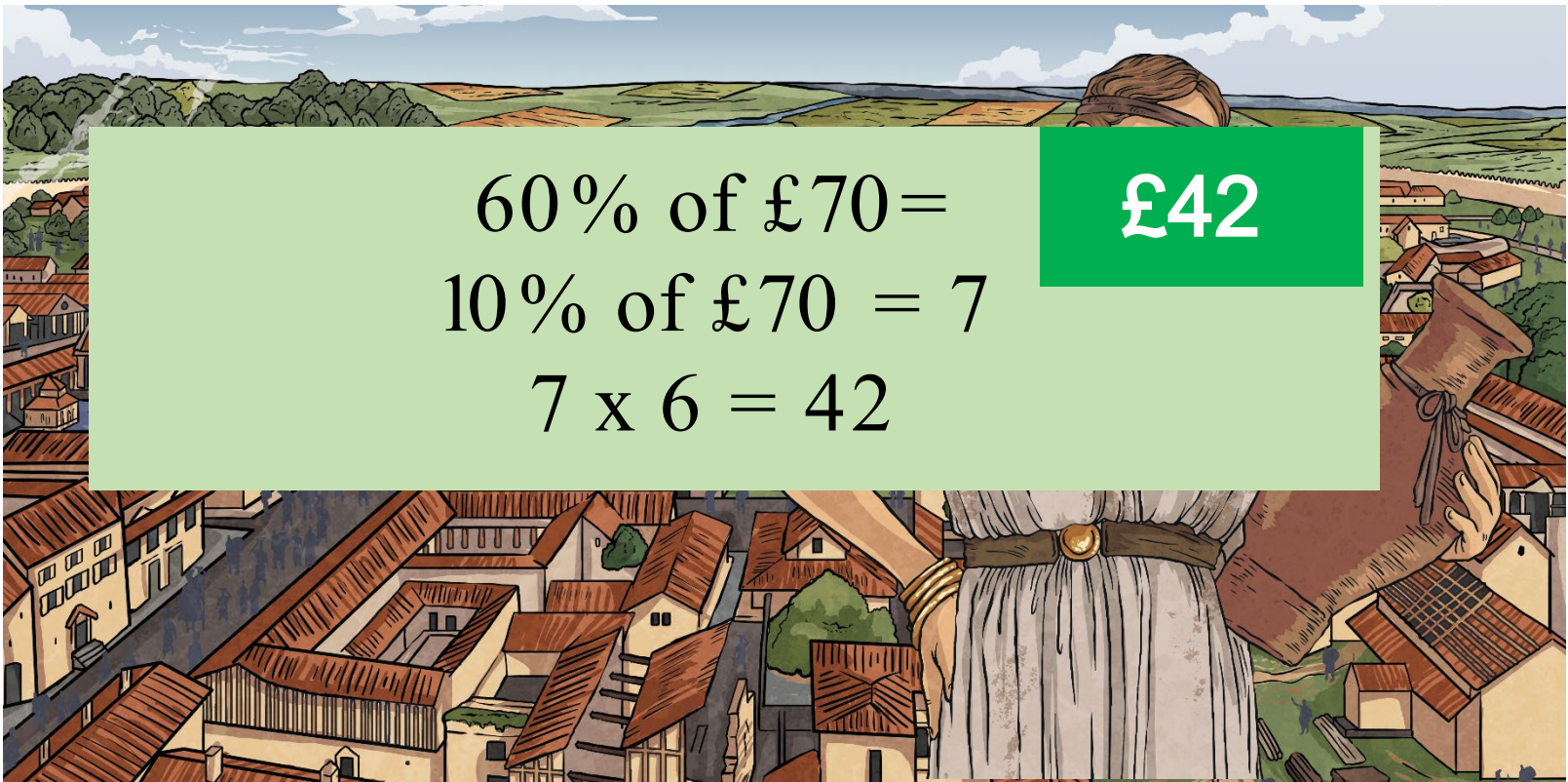


To find a percentage of something, what calculation do you need to do?

First divide by 10 to find 10%

$$\begin{aligned}60\% \text{ of } £70 &= \\10\% \text{ of } £70 &= 7 \\7 \times 6 &= 42\end{aligned}$$

£42



You try...



To find a percentage of something, what calculation do you need to do?

A detailed illustration of a medieval town with red-tiled roofs, a river, and rolling hills in the background. A person in a white robe with a gold belt is visible in the foreground, looking out over the town.

40% of £120 =
 10% of £120 =

Calculating Percentages



To find a percentage of something, what calculation do you need to do?

The background of the slide features a colorful illustration of a medieval town with red-tiled roofs and a person in a white robe with a gold belt. The person is holding a large brown bag, possibly a money bag, which is partially visible on the right side of the frame.
$$\begin{aligned}40\% \text{ of } £120 &= \\10\% \text{ of } £120 &= 12 \\12 \times 4 &= 48\end{aligned}$$

£48

Calculating Percentages



Find the percentages of the following amounts:

30% of 500

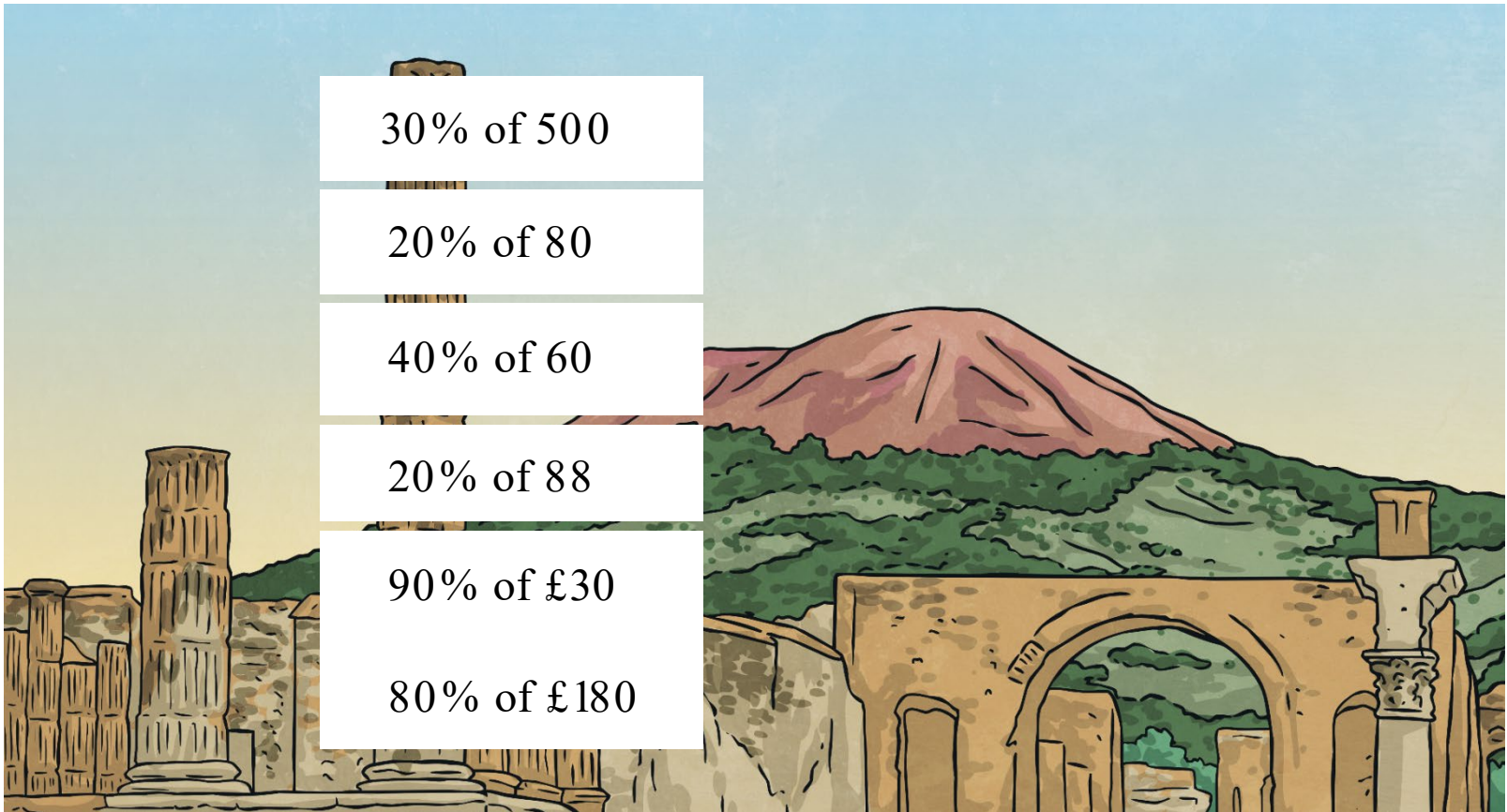
20% of 80

40% of 60

20% of 88

90% of £30

80% of £180



Calculating Percentages



Find the percentages of the following amounts:

30% of 500

150

20% of 80

16

40% of 60

24

20% of 88

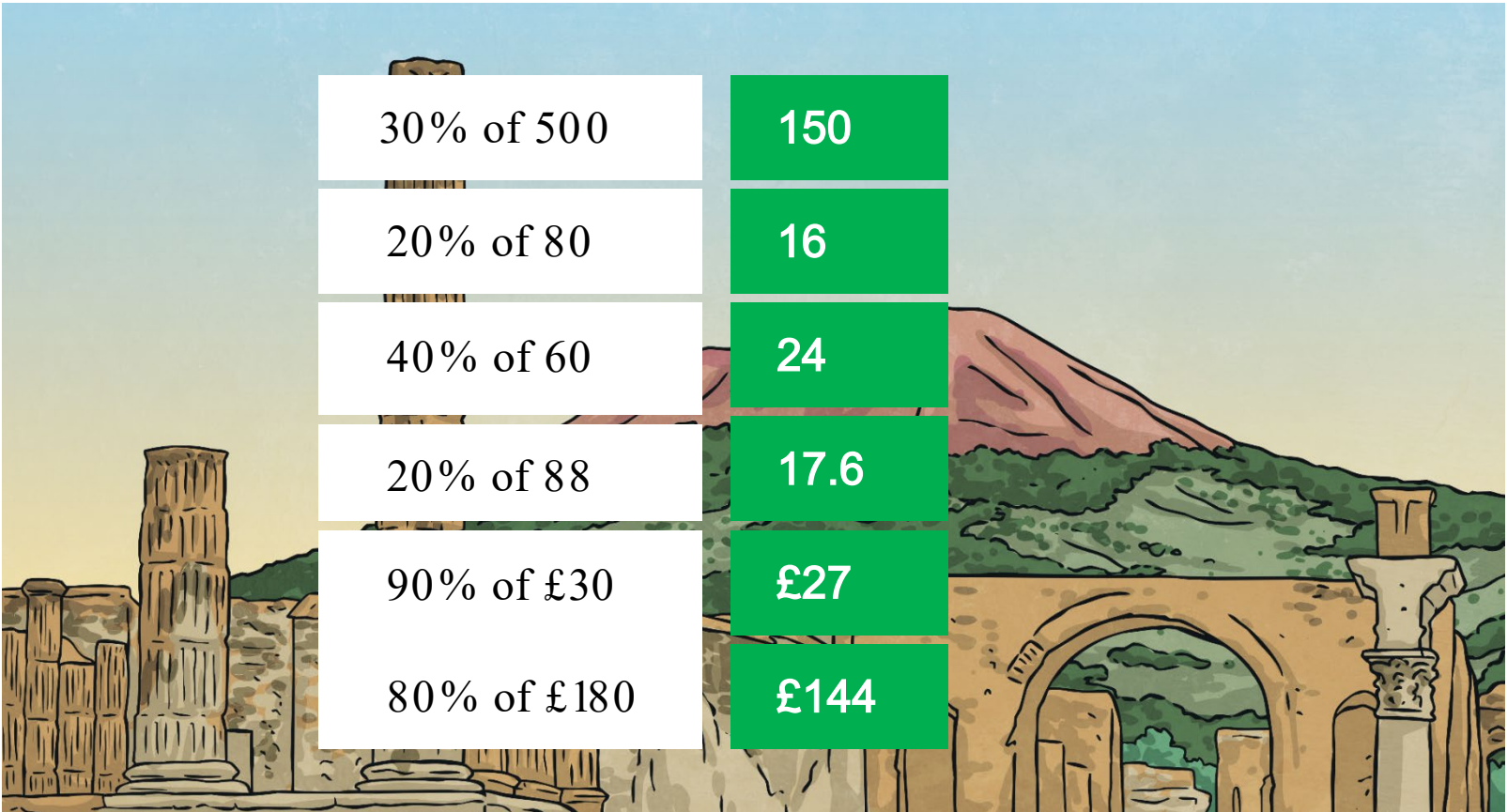
17.6

90% of £30

£27

80% of £180

£144



Calculating Percentages



To find a percentage of something, what calculation do you need to do?

What if we need to find a percentage which needs 5%?

$$35\% \text{ of } £60 =$$

$$10\% \text{ of } £60 = 6$$

$$5\% \text{ of } £60 = 3$$

$$30\% \text{ of } £60 = 18$$

First divide the amount by 10 to find 10%

Then divide your 10% amount (6) by 2 to find 5%.
 $6 \div 2 = 3$

Then multiply your 10% amount (6) by the number of lots of 10 you need.
In this case we need 3 lots of ten,
 $6 \times 3 = 18$

Finally, add your amount for 30% (18) to the amount for 5% (3).

$$18 + 3 = 21$$

$$\text{So } 35\% \text{ of } £60 = £21$$

$$35\% \text{ of } £60 = 18 + 3 = £21$$

Look at another example of this...



To find a percentage of something, what calculation do you need to do?

First divide by 10 to find 10%

$$65\% \text{ of } £120 = 78$$

$$10\% \text{ of } £120 = 12$$

$$5\% \text{ of } £120 = 12 \div 2 = 6$$

$$60\% \text{ of } £120 = 12 \times 6 = 72$$

$$35\% = 6 + 72 =$$

You try...



To find a percentage of something, what calculation do you need to do?

$$35\% \text{ of } £40 =$$

$$10\% \text{ of } £40 = \underline{\quad}$$

$$5\% \text{ of } £40 = \underline{\quad} \div 2 = \underline{\quad}$$

$$30\% \text{ of } £40 = \underline{\quad} \times 3 = \underline{\quad}$$

$$35\% = \underline{\quad} + \underline{\quad} =$$

You try...



To find a percentage of something, what calculation do you need to do?

$$35\% \text{ of } £40 =$$

14

$$10\% \text{ of } £40 = 4$$

$$5\% \text{ of } £40 = 4 \div 2 = 2$$

$$30\% \text{ of } £40 = 4 \times 3 = 12$$

$$35\% = 12 + 2 = 14$$

You try...



To find a percentage of something, what calculation do you need to do?

$$85\% \text{ of } £200 =$$

$$10\% \text{ of } £200 = \underline{\quad}$$

$$5\% \text{ of } £200 = \underline{\quad} \div 2 = \underline{\quad}$$

$$80\% \text{ of } £200 = \underline{\quad} \times 8 = \underline{\quad}$$

$$35\% = \underline{\quad} + \underline{\quad} =$$

You try...



To find a percentage of something, what calculation do you need to do?

$$85\% \text{ of } £200 = \text{£170}$$

$$10\% \text{ of } £200 = 20$$

$$5\% \text{ of } £200 = 20 \div 2 = 10$$

$$80\% \text{ of } £200 = 20 \times 8 = 160$$

$$85\% = 160 + 10 = 170$$

Calculating Percentages

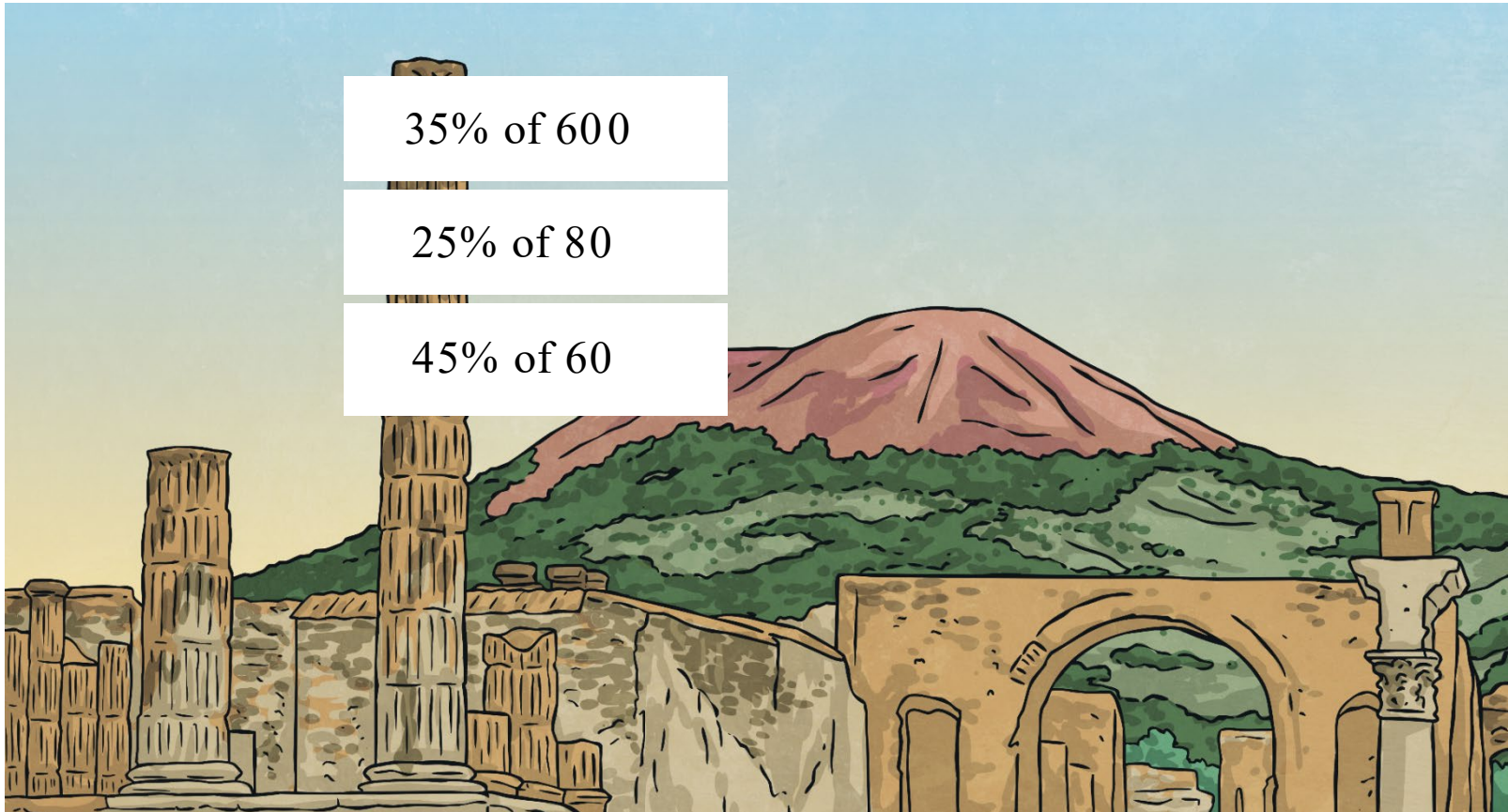


Find the percentages of the following amounts:

35% of 600

25% of 80

45% of 60



Calculating Percentages



Find the percentages of the following amounts:

35% of 600

150

25% of 80

16

45% of 60

24

