

Lesson Plan

Things to remember:

- We can find a percentage amount by breaking it up into smaller percentages and adding/subtracting/dividing, or by finding 1% and multiplying.
- When writing money, we write it to 2dp. So, we may need to add an extra decimal or round.

Before we start, it is worth remembering some simple percentage conversions:

Percentage	Division
100%	$\div 1 \backslash \text{div } 1 \div 1$
50%	$\div 2 \backslash \text{div } 2 \div 2$
25%	$\div 4 \backslash \text{div } 4 \div 4$
20%	$\div 5 \backslash \text{div } 5 \div 5$
10%	$\div 10 \backslash \text{div } 10 \div 10$
5%	$\div 20 \backslash \text{div } 20 \div 20$
4%	$\div 25 \backslash \text{div } 25 \div 25$
2%	$\div 50 \backslash \text{div } 50 \div 50$
1%	$\div 100 \backslash \text{div } 100 \div 100$

Finding percentage amounts of money is the same as finding amounts of just normal numbers, which we learn two methods for in **Comparing Percentages**.

What is 30% of £82?

We'll use **Method 1** from **Comparing Percentages**.

Step 1: Think about the percentages that add or multiply together to make your percentage.

$$30\% = 20\% + 10\% \quad 30\% = 20\% + 10\% \quad 30\% = 20\% + 10\%$$

Step 2: Find the value of these percentages

$$20\% \text{ of } £82 = £82 \div 5 = £16.4 \quad 20\% \text{ of } \pounds 82 = \pounds 82 \div 5 = \pounds 16.4$$

$$10\% \text{ of } £82 = £82 \div 10 = £8.2 \quad 10\% \text{ of } \pounds 82 = \pounds 82 \div 10 = \pounds 8.2$$

Step 3: Add/Subtract/Multiply

$$30\% = 20\% + 10\% \quad 30\% = 20\% + 10\%$$

$$30\% \text{ of } £82 = £16.4 + £8.2 = £24.6 \quad 30\% \text{ of } \pounds 82 = \pounds 16.4 + \pounds 8.2 = \pounds 24.6$$

But, we have to remember that when we have money it comes in 2dp, so the answer is £24.60.

What is 89.5% of £15?

We'll use **Method 2** from **Comparing Percentages**.

Step 1: Divide the number you're finding the percentage of by 100 to find 1%.

$$15 \div 100 = 0.15 \quad 15 \div 100 = 0.15$$

$$1\% = 0.15 \quad 1\% = 0.15$$

Step 2: Multiply the value of 1% found in Step 1 by your starting percentage.

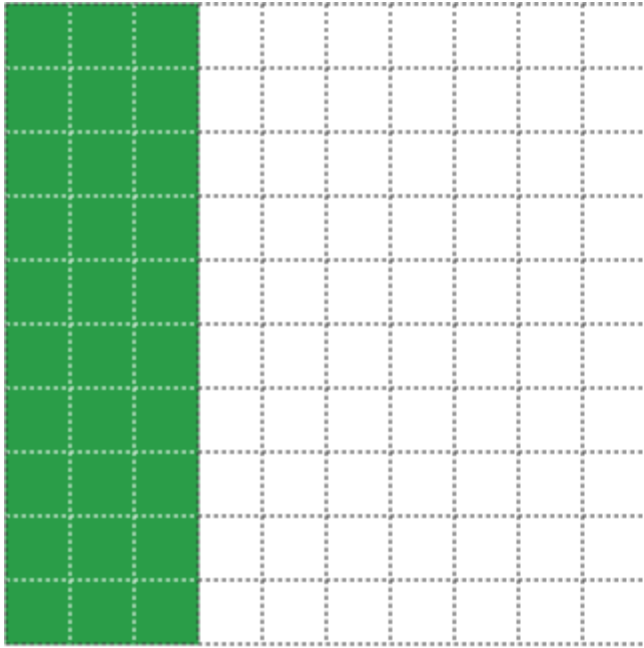
$$89.5\% = 89.5 \times 1\% \quad 89.5\% = 89.5 \times 1\%$$

$$89.5\% \text{ of } 15 = 89.5 \times 0.15 = 13.425 \quad 89.5\% \text{ of } 15 = 89.5 \times 0.15 = 13.425$$

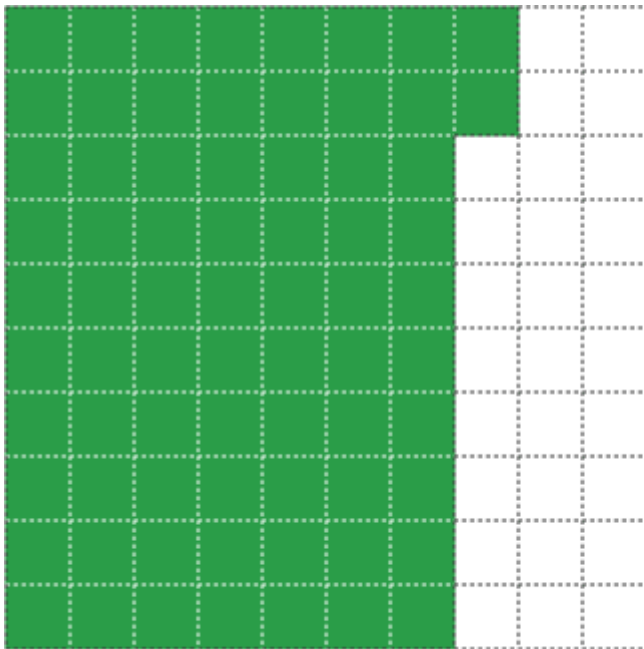
So, this time, our answer is £13.425. But, now we have too many decimal places, so we need to round it so we only have two. Our answer this time will be £13.43.

What are percentages?

In this diagram, **30** out of **100** squares have been shaded. So **30%** has been shaded.



Examples of percentages



What percentage has been shaded?