

Calculate key fractions, decimals and percentages of an amount without a calculator

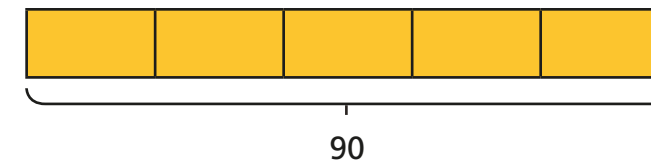


- 1 Work these out without using a calculator.
Show how you worked out your answers.

Question	Working	Answer
50% of 30		
25% of 80 kg		
$\frac{1}{3}$ of 90 cm		
$\frac{2}{3}$ of 12 m		
10% of £700		
40% of £700		
$\frac{9}{10}$ of 3,000 m		

- 2 Complete the different methods for working out $\frac{4}{5}$ of £90

Method 1



$$\frac{1}{5} \text{ of } £90 = £90 \div 5 = £ \boxed{}$$

$$\text{So } \frac{4}{5} \text{ of } £90 = £ \boxed{} \times 4 = £ \boxed{}$$

Method 2

$$\frac{4}{5} = \frac{8}{10} = 80\%$$

$$10\% \text{ of } £90 = £90 \div 10 = £ \boxed{}$$

$$\text{So } 80\% \text{ of } £90 = £ \boxed{} \times 8 = £ \boxed{}$$

Method 3

$$\frac{1}{5} \text{ of } £90 = £90 \div 5 = £ \boxed{}$$

$$\text{So } \frac{4}{5} \text{ of } £90 = £90 - £ \boxed{} = £ \boxed{}$$

Method 4

$$\frac{4}{5} = \frac{8}{10} = 0.8$$

$$\text{So } 0.8 \times £90 = 8 \times £ \boxed{} = £ \boxed{}$$

Which method do you prefer? _____

Why?

3 Write $>$, $<$ or $=$ to complete the statements.

a) half of 10,000 \bigcirc 10% of 50,000

b) 50% of £600 \bigcirc 10% of £4,000

c) $\frac{1}{3}$ of £600 \bigcirc 20% of £1,100

d) 90% of 40 kg \bigcirc $\frac{3}{4}$ of 48 kg

4 Complete the calculations.

a) $0.1 \times 60 =$

$0.2 \times 60 =$

$0.7 \times 60 =$

c) $0.1 \times 650 =$

$0.2 \times 650 =$

$0.7 \times 650 =$

b) $0.1 \times 600 =$

$0.2 \times 600 =$

$0.7 \times 600 =$

d) $0.01 \times 60 =$

$0.02 \times 60 =$

$0.07 \times 60 =$

5 Complete the different methods for working out 45% of 80

Method 1

10% of 80 = $80 \div 10 =$

40% of 80 = $\times 4 =$

5% of 80 = $\div 2 =$

So 45% of 80 = $+$ $=$

Method 2

50% of 80 = $80 \div$ $=$

5% of 80 = $\div 10 =$

So 45% of 80 = $-$ $=$

Method 3

25% of 80 = $80 \div$ $=$

20% of 80 = $80 \div$ $=$

So 45% of 80 = $+$ $=$

Which method do you prefer? _____

Why?

