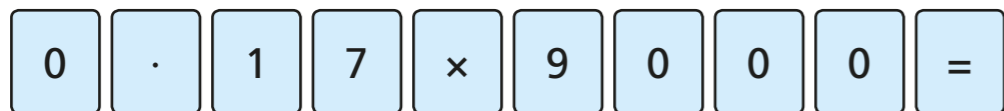


Calculate fractions, decimals and percentages of an amount using calculator methods

1 Rosie and Amir are using a calculator to find 17% of 9,000
Here's what they typed into their calculators.

Rosie



Amir



Use your calculator to check with a partner that both methods give the same answer.

Which method do you prefer?

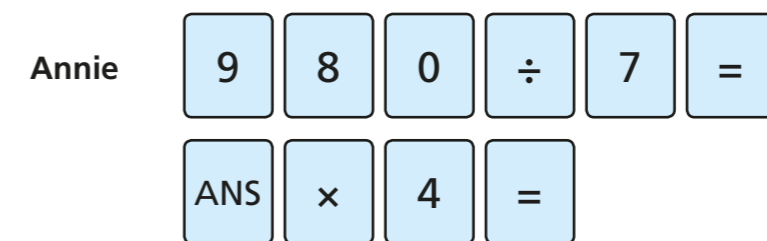
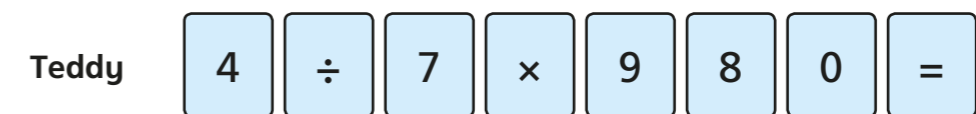
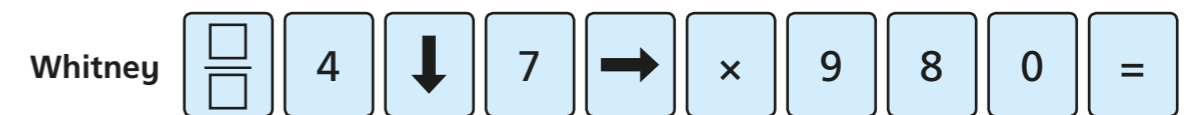
2 Use a calculator to work out the percentages.

- a) 43% of 4,000 =
- b) 26% of £3,000 =
- c) 92% of 680 kg =
- d) 30% of 820 =
- e) 35% of 820 =
- f) 35.2% of 820 =

3 Complete the table.

Question	Estimate	Calculation and answer
53% of 870	50% of 900 = $900 \div 2 =$ <input type="text" value="450"/>	$0.53 \times 870 =$ <input type="text" value="461.1"/>
88% of 302	$90\% \text{ of } 300 = 270$	$0.88 \times 302 = 265.76$
33% of 880	$30\% \text{ of } 900 = 270$	$0.33 \times 880 = 290.4$

4 Whitney, Teddy and Annie are using their calculators to find $\frac{4}{7}$ of 980
Here's what they typed in their calculators.



Use your calculator to check with a partner that all three methods give the same answer.

Whose method do you prefer? Various answers

Why?

5 Use a calculator to work out the fractions.

- a) $\frac{3}{5}$ of 850 =
- b) $\frac{7}{8}$ of 12,000 =
- c) $\frac{2}{3}$ of 513 =
- d) $\frac{5}{4}$ of 764 =
- e) $\frac{11}{25}$ of 1,650 =
- f) $\frac{25}{11}$ of 6,743 =

6 Nijah works out 23% of £120 on her calculator. She writes £27.6
Her teacher marks the answer wrong. Why?

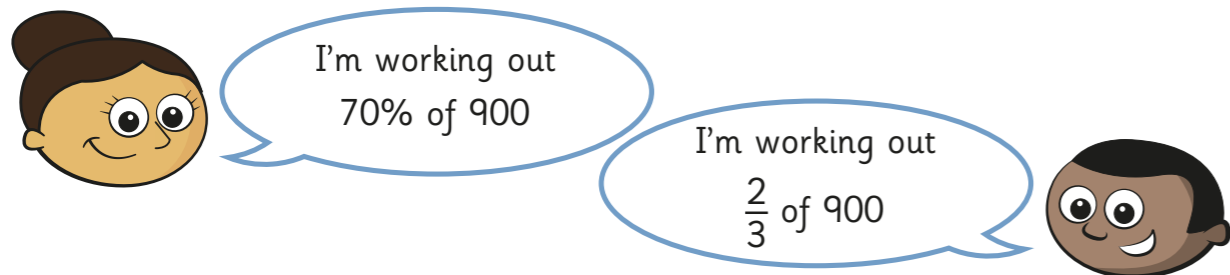
7 a) Round the numbers to one significant figure.

6,300	6,350	6,305	6,300.5
6,000	6,000	6,000	6,000
23	23.5	0.23	0.235
20	20	0.2	0.2

b) Complete the table.

Question	Estimate	Calculation and answer
$23\% \times 6,305$	1,200	$0.23 \times 6,305 = 1,450.15$
$0.235 \times 6,350$	1,200	$0.235 \times 6,350 = 1,492.25$
37.6% of 41	16	$0.376 \times 41 = 15.416$
0.088×909	81	$0.088 \times 909 = 79.992$

c) Dora and Mo are estimating 68% of 900



Explain why both methods will give a good estimate of 68% of 900

68 rounded to 1s.f is 70

$\frac{2}{3} \approx 66.7\%$

Will their estimates be greater or smaller than the actual answer?

	greater	smaller
Dora's estimate	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mo's estimate	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8 a) Write the percentages as decimals.

13%	1.3%	0.13%	1.13%
0.13	0.013	0.0013	0.0113

b) Mr Hall invests £3,500 in a bank account. After one year, the bank pays him 1.3% interest on his investment. Work out how much interest Mr Hall receives.

£45.50

c) Miss Lee gets a loan of £5,000 from a bank. At the end of the year, she is charged 2.75% interest on her loan. How much does she now owe the bank altogether?

£5,137.50

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

a) 63% of 12,000 $<$ $0.17 \times 58,000$

b) 3.8% of 2 million $>$ $\frac{5}{8}$ of 90,000

c) 85% of 70 million $>$ 0.8% of 7 billion

d) $\frac{2}{3}$ of 91,521 $<$ $0.43 \times 150,000$

e) 5% of $3,000^2$ $=$ $\frac{9}{20}$ of 1 million