

Mixed calculations

Calculate fractions, decimals and percentages mentally

C

1. Answer these questions in your head.

$\frac{1}{5}$ of £150 = £30. So $\frac{3}{5}$ is £30 x 3 = £90.



- 10% of £150 = £ _____
- 1% of £150 = £ _____ $\frac{3}{5}$ of £150 = £ 90
- $33\frac{1}{3}$ % of £150 = £ _____ $\frac{7}{15}$ of £150 = £ _____
- 4% of £150 = £ _____ **£150** $\frac{9}{25}$ of £150 = £ _____
- 11% of £150 = £ _____ $\frac{5}{6}$ of £150 = £ _____
- 15% of £150 = £ _____ $\frac{2}{3}$ of £150 = £ _____
- 97% of £150 = £ _____

2. Choose two cards to make a percentage or fraction question, and find the answer. Show your working.

$\frac{2}{3}$
 $\frac{5}{6}$
 $\frac{5}{18}$
11%
15%
270
72
450

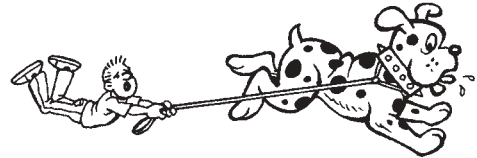
- (a) $\frac{2}{3}$ of 270 = 180
- (b) of = _____
- (c) of = _____
- (d) of = _____
- (e) of = _____
- (f) of = _____
- (g) of = _____

*$\frac{1}{3}$ of 270 is $270 \div 3 = 90$
So $\frac{2}{3}$ of 270 is $2 \times 90 = 180$*

NOW TRY THIS!

40% of a class are girls. 75% of the girls and $\frac{1}{3}$ of the boys own a pet.

• What proportion of the class owns a pet? _____



Use mental methods to help you answer these questions. You can find 10% or 1% first, then use this answer to help you find other percentages: for example, 11% of £90 = (10% of £90) + (1% of £90) = £9 + £0.90 = £9.90. **Proportion** compares one part with the whole. Proportions can be written as fractions, decimals or percentages.