# Percentages

*MNU 3-07a I can solve problems by carrying out calculations with a wide range of fractions, decimals fractions and percentages, using my answers to make comparisons and informed choices for real life situations.*

## Percent means "out of one hundred"

To calculate simple percentages pupils need to convert percentages into fractions.

| 10% | 20% | $33\frac{1}{3}$% | 50% | $66\frac{2}{3}$% | 75% |
|---|---|---|---|---|---|
| $\dfrac{1}{10}$ | $\dfrac{1}{5}$ | $\dfrac{1}{3}$ | $\dfrac{1}{2}$ | $\dfrac{2}{3}$ | $\dfrac{3}{4}$ |

Find $33\frac{1}{3}$% of 1500

$33\frac{1}{3}$% of 1500

$\frac{1}{3}$ of 1500

= 500

# Harder Percentages

| Non Calculator Method | Calculator Method |
|---|---|
| Find some combination of simple percentages to make up the complex percentage. | Type into the calculator |
| | Percentages = % ÷ 100 x amount |
| For example<br>5% = 10% ÷ 2<br>35% = 3 x 10% + 5%<br>19% = 20% - 1% | Find 17% of £30 |
| Find 17.5% of £300 | 17 ÷ 100 x 30 = £5.10 |
| 10%  = 300 ÷ 10            = £30<br>5%    = 10% ÷ 2   = 30 ÷ 2 = £15<br>2.5% = 5% ÷ 2     = 15 ÷ 2 = £7.50 | |
| 17.5% =   £52.50 | |

NUMERACY