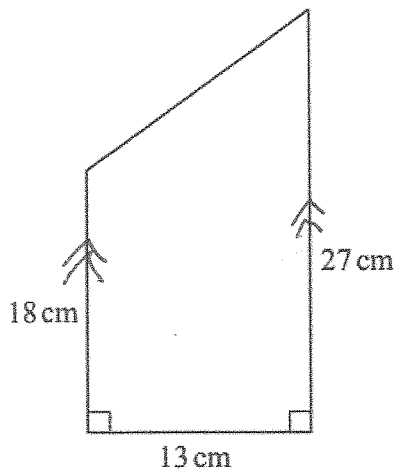


# M4 = 17 days to go!

3 Find the area of this trapezium.



on formula page

$$\begin{aligned} A &= \frac{1}{2}(a+b)h \\ &= \frac{1}{2}(18+27)13 \\ &= \frac{1}{2}(43)13 \\ &= 279.5 \end{aligned}$$

Answer 279.5 cm<sup>2</sup> [2]

28 Solve

$$\frac{3x-2}{6} - \frac{x-2}{3} = \frac{7}{4}$$

Show all your working.

A solution by trial and improvement will not be accepted.

The fractions are the annoying thing.  
Get all over the same denominator

$$\frac{2(3x-2)}{12} - \frac{4(x-2)}{12} = \frac{7 \times 3}{12}$$

$$2(3x-2) - 4(x-2) = 21$$

$$6x-4 - 4x+8 = 21$$

$$2x+4 = 21$$

$$2x = 21-4 \text{ Answer } x = \underline{8\frac{1}{2}} \text{ [4]}$$

$$2x = 17$$

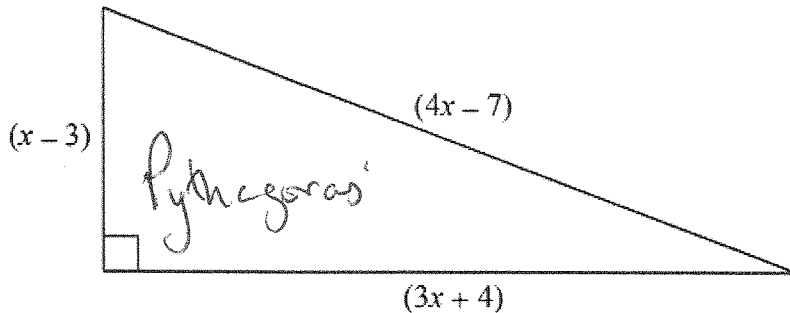
Think

$$\frac{7}{12} - \frac{1}{12} = \frac{6}{12}$$
$$7 - 1 = 6$$

13 In the triangle shown find  $x$  and hence the length of the longest side.

A solution by trial and improvement will not be accepted.

Show all your working.



$$h^2 = a^2 + b^2$$

$$(4x-7)^2 = (x-3)^2 + (3x+4)^2 \quad \text{use FOIL}$$

$$16x^2 - 56x + 49 = x^2 - 6x + 9 + 9x^2 + 24x + 16$$

$$16x^2 - 10x^2 - 56x + 6x - 24x + 49 - 9 - 16 = 0$$

$$6x^2 - 74x + 24 = 0$$

Answer  $x =$  \_\_\_\_\_ longest side = \_\_\_\_\_ [7]

4 A special offer shampoo bottle contains 20% extra.

It contains 900 ml of shampoo.

How much shampoo was in the original bottle?

$$\text{original} + 20\% = 900\text{ml}$$

$$? + 20\% = 900\text{ml}$$

$$120\% = 900\text{ml}$$

$$1\% = \frac{900}{120}$$

Answer 750 ml [3]

$$100\% = 750$$