1. 2010 Paper 2 Q.7

Volume sf = $\frac{1600}{200}$ = 8 ✓

Volume sf = (length sf)^3 so $\sqrt[3]{\ }$ to get length sf.

length sf = $\sqrt[3]{8}$ = 2 . ✓

$h = 12 \times 2$
$h = 24cm$

so   The height of the salon size bottle is 24 cm ✓

(3ku)

2. 2009 Paper 2 Q.4

length sf = $\frac{10}{4}$ = $\frac{5}{2}$ ✓

area sf = $\left(\frac{5}{2}\right)^2$
= $\frac{25}{4}$ ✓

Area of larger magnet = $\frac{25}{4} \times 18$

Area = 112.5 cm² ✓
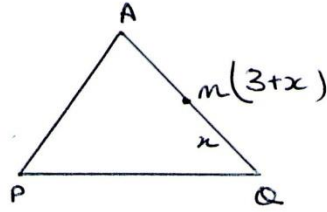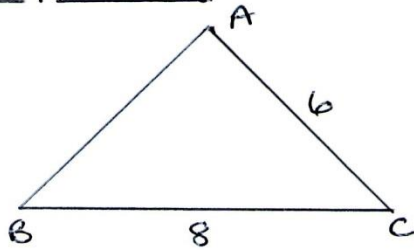
(3ku)

3. 2007 Paper 1 Q.8

length sf = $\frac{75}{40}$ ✓

$\ell = \frac{75}{40} \times 48 = \frac{75}{5} \times 6$
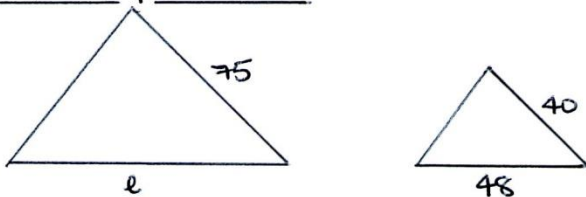
$\ell = 90$ ✓

• The ironing board does meet the requirements as it
it 10cm longer than 80cm. ✓

(3RE)

.4. 2006 Paper 2 Q.11

(a)   AQ = (3+x)   ✓   (1 RE)

(b)   length SF = $\frac{(3+x)}{6}$ ✓

PQ = $\frac{(3+x)}{6}$ × 8   ✓

PQ = $\left(\frac{1}{2} + \frac{x}{6}\right)$ × 8

PQ = $4 + \frac{8x}{6}$ ✓   (3 RE)

PQ = $\left(4 + \frac{4x}{3}\right)$ cm

.5.   2006 Paper 1 Q7

length SF = $\frac{21}{14} = \frac{3}{2}$ ✓

Volume SF = $\left(\frac{3}{2}\right)^3 = \frac{27}{8}$ ✓

Volume = $\frac{27}{\cancel{8}} × \cancel{160}^{20}$ ✓

Volume = 540 ml.   ✓   (4 ku)

.6.   2003 Paper 2 Q.9

length SF = $\frac{9}{6} = \frac{3}{2}$ ✓

Volume SF = $\left(\frac{3}{2}\right)^3 = \frac{27}{8}$ ✓

Volume = $30 × \frac{27}{8}$

Volume = 101.25 ml.   ✓   (3 ku)

.7. 2005 Paper 2 Q.5

length SF = $20/5$ = 4
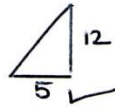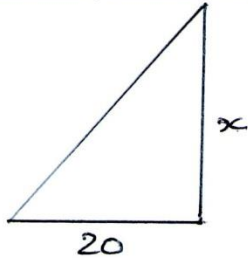
x = 4×12
x = 48 .

(1 mark for recognising
similar shapes)

(4RE)

The height of the tower is 48 m.

.8. 1999 Paper 2 Q.8

length SF = $\frac{30}{20}$

= $3/2$

Volume SF = $(3\frac{1}{2})^3$ = $27/8$

Volume = $27/8$ × 0.8

Volume of jug = 2.7 litre

(3ku)

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9. 1998 Paper 1 Q.5
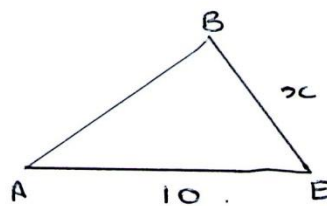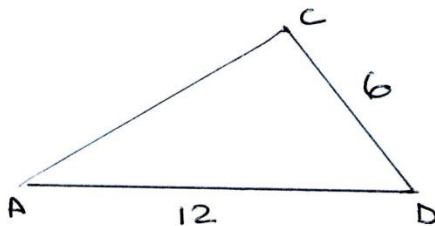
length SF = $10/12$ = $5/6$

x = $5/6$ × 6

x = $30/6$

x = 5

BE = 5cm

10. <u>2002 Paper 2 Q.12</u>

A, 1.5, B, 6, P, x, i, B (diagram)
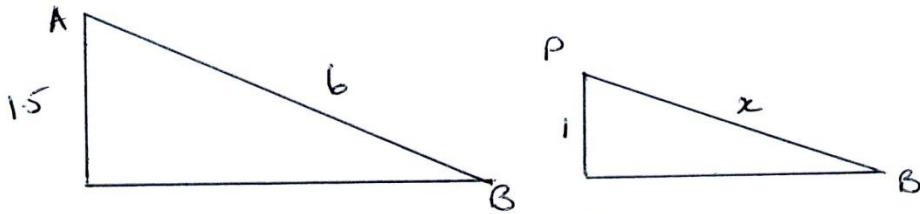
length SF = $\frac{1}{1.5}$ = $\frac{2}{3}$ ✓

$x = 6 \times \frac{2}{3}$ (can use $\frac{1}{1.5} \times 6$) ✓

$x = 4$ ✓

$AP = 6 - 4$ ✓
$AP = 2$.

2, P, i, A, 6, B, x, A (diagrams)
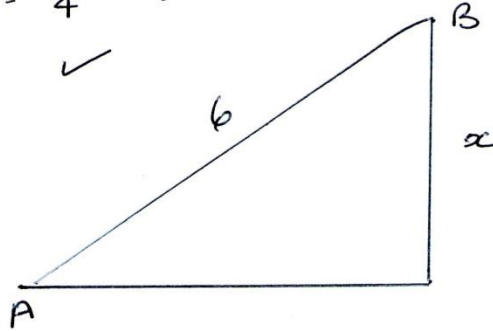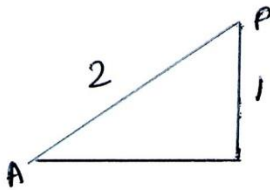
length SF = $\frac{6}{2}$ = 3. ✓

$x = 3 \times 1 = 3$ ✓

<u>The height of B above the ground is 3m</u>

(5RE)

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11. <u>1990 Paper 1 (KU)</u>

length SF = $\frac{200}{160}$ = 1.25 or $\left(\frac{5}{4}\right)$ ✓

Volume SF = $(1.25)^3$ = 1.953125 or $\left(\frac{125}{64}\right)$ ✓

Price of large tube = $\frac{125}{64} \times 1.12$

= 2.1875 ✓   (3ku)
= £2.19.