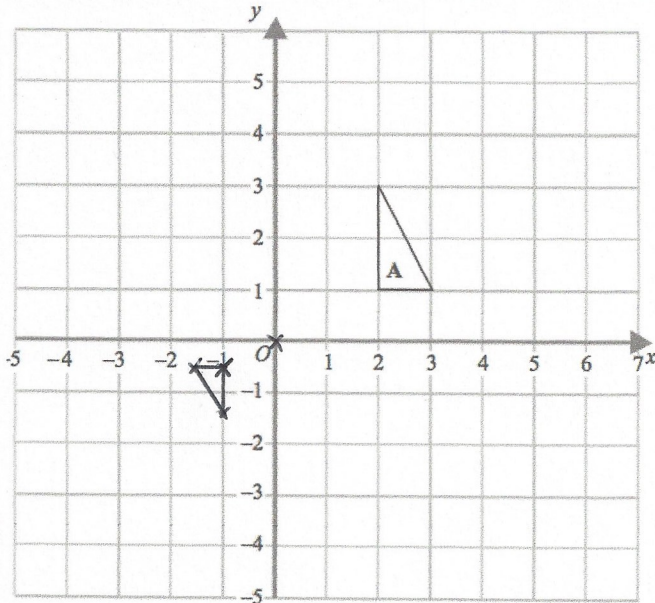


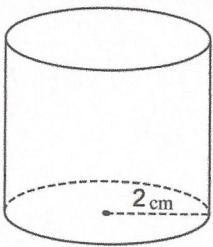
19th October



Corbettmaths

Enlarge A by scale factor $-\frac{1}{2}$, centre O.

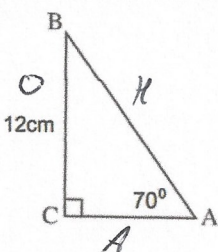
Calculate the surface area



$$\pi \times 4 \times 5 = 62.83185307$$

$$5\text{cm} \quad \pi r^2 = \pi \times 2^2 = 12.56637061$$

$$62.83185307 + 2 \times 12.566 = 87.96\text{cm}^2$$



$$\tan 70 = \frac{12}{A}$$

$$A = \frac{12}{\tan 70}$$

$$= 4.3676\text{cm}$$

Calculate the perimeter of ABC.

$$h^2 = 12^2 + A^2$$

$$= 12^2 + 4.3676^2$$

$$= 163.0763037$$

$$h = 12.77$$

$$\text{Perimeter} = 29.138\text{cm}$$

Make m the subject of

$$y = \frac{m+4}{m+5}$$

$$y(m+5) = m+4$$

$$my + 5y = m+4$$

$$my - m = 4 - 5y$$

$$m(y-1) = 4 - 5y$$

$$m = \frac{4 - 5y}{y - 1}$$