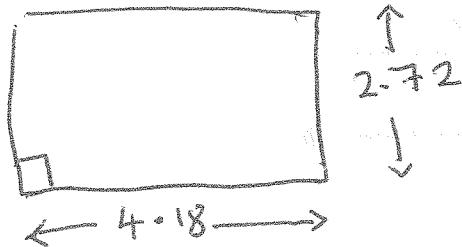


# m7 = 13 days to go!

12 Tiles measure  $0.5\text{m}$  by  $0.3\text{m}$   $50\text{ cm}$  by  $30\text{ cm}$ .

Each tile costs £2.09

Estimate the cost of tiling a room which measures  $4.18\text{ m}$  by  $2.72\text{ m}$ .



$$4.18 \div 0.5$$

$$\approx 8 \text{ or } 9 \quad \leftarrow \text{need } 9$$

$$2.72 \div 0.3$$

$$\approx 9 \text{ but need } 10$$

$$9 \times 10 = 90 \text{ tiles needed}$$

$$90 \times 2.09$$

$$\approx 90 \times 2$$

Answer £ 180 [4]

The  $n$ th term of a number sequence is  $n^2 + 3$ .

(a) Find the first three terms of this sequence.

$$\begin{array}{l} 1^{\text{st}} \\ 1^2 + 3 \\ 1 + 3 \\ 4 \end{array}$$

$$\begin{array}{l} 2^{\text{nd}} \\ 2^2 + 3 \\ 4 + 3 \\ 7 \\ \text{1st term} \end{array}$$

4

2nd term

$$\begin{array}{l} 3^{\text{rd}} \\ 3^2 + 3 \\ 9 + 3 \end{array}$$

7

3rd term

12

(2)

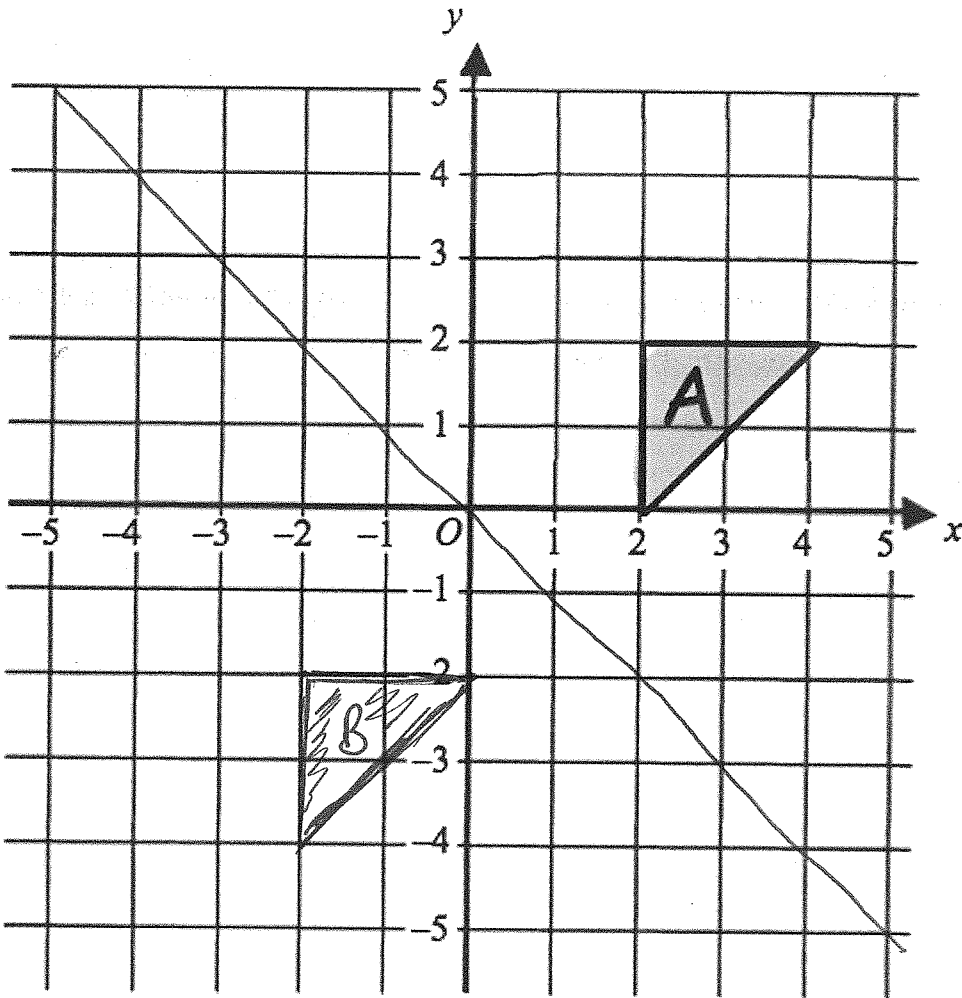
(b) Work out the difference between the 5<sup>th</sup> and 10<sup>th</sup> terms in the sequence.

$$\begin{array}{l} 5^{\text{th}} \\ 5^2 + 3 \\ 25 + 3 \\ 28 \end{array}$$

$$\begin{array}{l} 10^{\text{th}} \\ 10^2 + 3 \\ 100 + 3 \\ 103 \end{array}$$

$$\begin{aligned} \text{Difference} &= 103 - 28 \\ &= 75 \end{aligned}$$

$$\begin{array}{r} 75 \\ \hline \end{array} \quad (3)$$



Reflect the triangle in the line  $y = -x$   
Label the new triangle B.

You need to know

