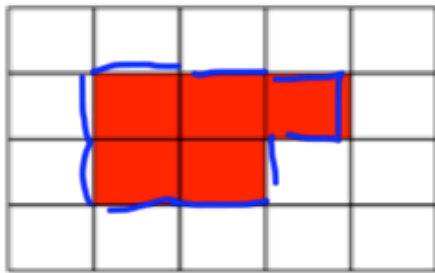
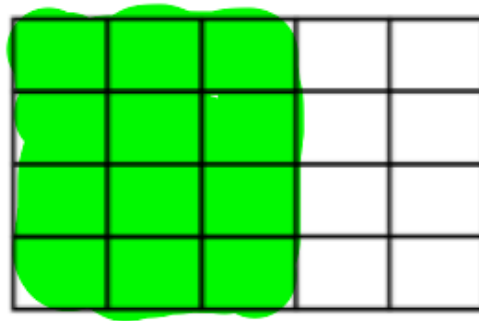


Shaded three fifths of this grid

$$\frac{3}{5} \text{ of } 20 = 12$$



Draw on 1cm grid

What is the area?

$$5\text{cm}^2$$

What is the perimeter?

$$10\text{cm}$$

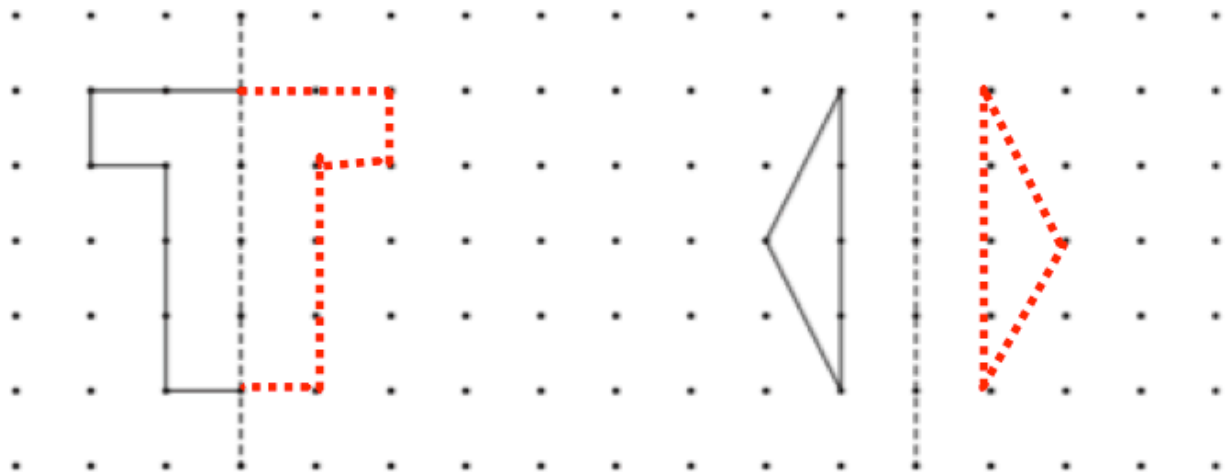
Expand

$$5(x + 3) = 5x + 15$$

Expand

$$y(y - 4) = y^2 - 4y$$

Reflect the each shape on the grid below.



19 22 25 28 ....

3 6 9 12  
Work out the nth term.

$$3n + 16$$

Calculate the 100th term.

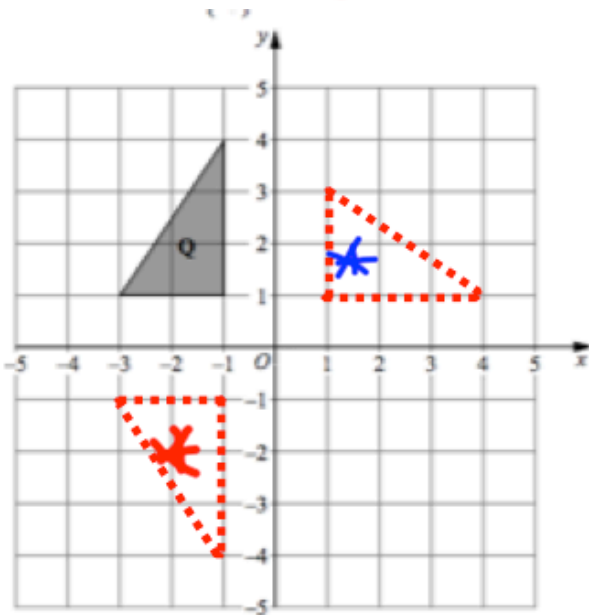
$$3 \times 100 + 16$$

$$316$$

Solve  $3w + 8 = 23$

$$3w = 15$$

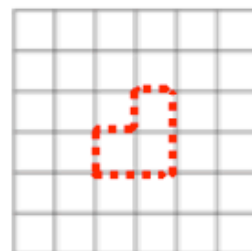
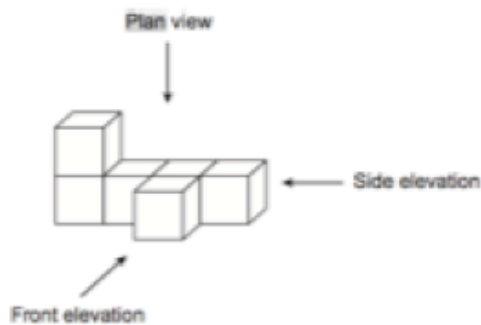
$$w = 5$$



Reflect Q in the x-axis



Rotate Q 90 degrees clockwise about the origin



Draw the side elevation

Solve the simultaneous equations

$$5x - y = 22$$

$$3x + y = 18$$

$$\begin{array}{r} 5x - y = 22 \\ + 3x + y = 18 \\ \hline 8x = 40 \end{array}$$

$$x = 5$$

$$\begin{array}{r} 25 - y = 22 \\ y = 3 \end{array}$$

Find the area of a circle, that has circumference 20cm.

$$C = \pi \times d$$

$$20 \div \pi = 6.366\dots$$

$$r = d \div 2 = 3.18\dots$$

Area

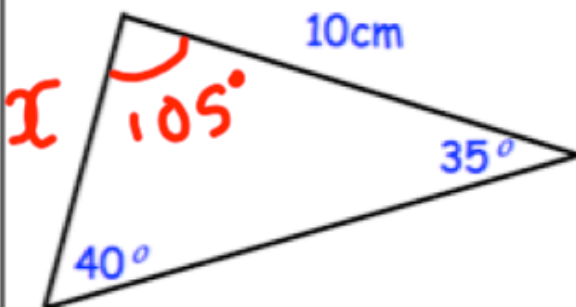
$$\pi \times r^2$$

$$\pi \times (3.18\dots)^2$$

$$31.8309\dots \text{cm}^2$$

Rationalise the denominator of:

$$\frac{6}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \frac{6\sqrt{2}}{2} = 3\sqrt{2}$$



Calculate the area of the triangle.

$$\text{Area} = \frac{1}{2} ab \sin C$$

$$\frac{1}{2} (8.92\dots)(10) \sin 105$$

$$43.096 \text{cm}^2$$

$$\frac{x}{\sin 35} = \frac{10}{\sin 40}$$

$$x = 8.923\dots$$