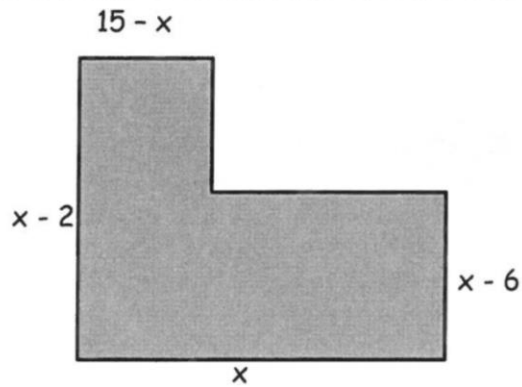
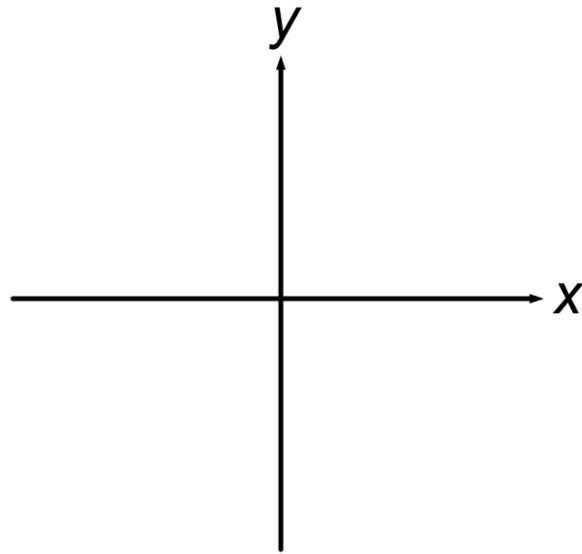


The area of this shape is  $71\text{cm}^2$  Find the value of  $x$  and hence the perimeter of the shape.



Sketch  $2x + 3y = 8$  and  $3x - y = 23$  on the same axes. Calculate their point of intersection.

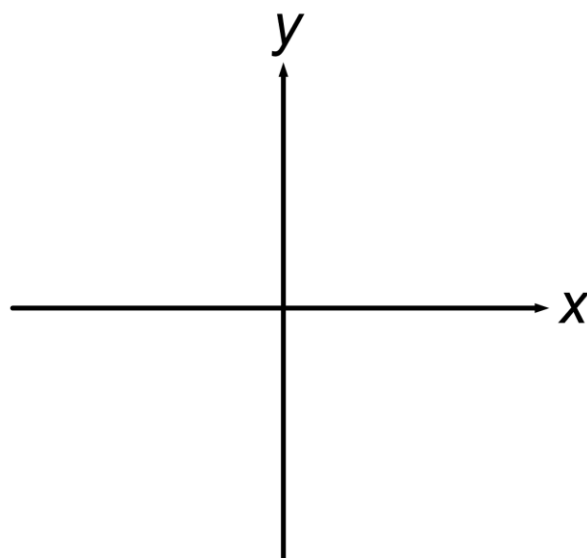


Solve the simultaneous equations using elimination and then substitution:

$$3x + y = 1$$

$$4x + 2y = -1$$

Sketch  $y = x + 6$  and  $y = 2x^2$  on the same axes. Calculate their points of intersection.



More generally, we can replace  $y$  (or  $x$ ) in one equation by  $y$  (or  $x$ ) in the other equation

Solve the following simultaneous equations

$$x + 3y = 7$$

$$x^2 - y = 15$$

$$y = x + 1$$

$$x^2 + y^2 = 1$$

$$2x + y = 3$$

$$2x^2 - xy = 10$$

$$2x + 3y = 5$$

$$4x^2 + 2xy = 21$$