

Tutorial 6

(Level 1)

1. Solve the simultaneous equations by eliminating y first:

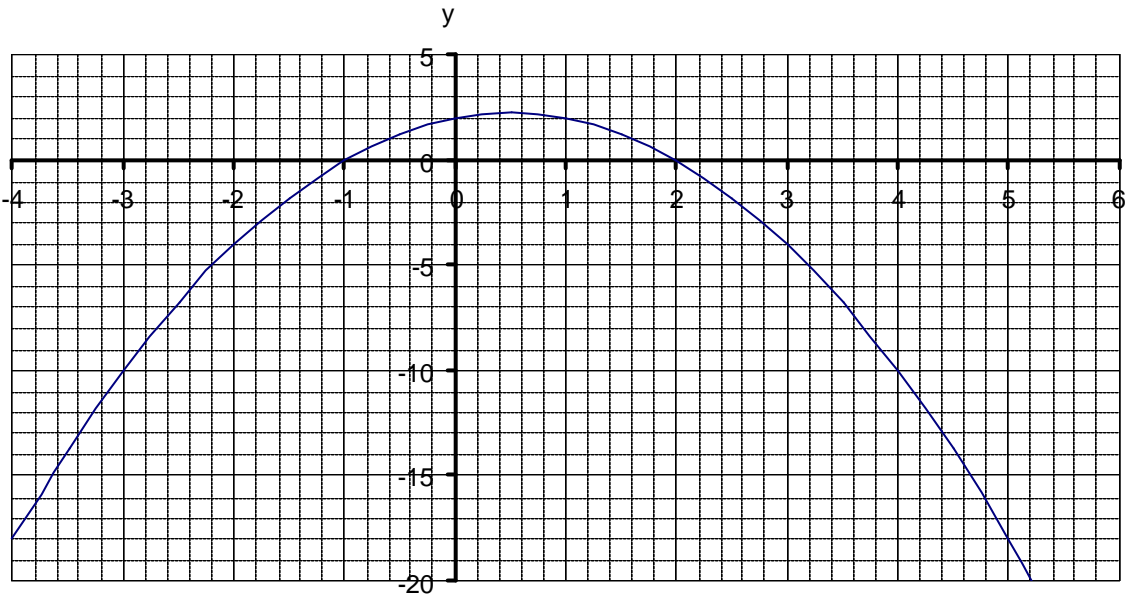
$$\begin{cases} 2x - y = 0 \\ x - 3y + 2 = 0 \end{cases}$$

2. Solve $y = 3 - x = 15 - x^2$

3. The following is the graph of $y = -x^2 + x + 2$. By drawing a suitable line, solve

a)
$$\begin{cases} y = -x^2 + x + 2 \\ y = 2x - 10 \end{cases}$$

b) $x^2 + x - 2 = 0$

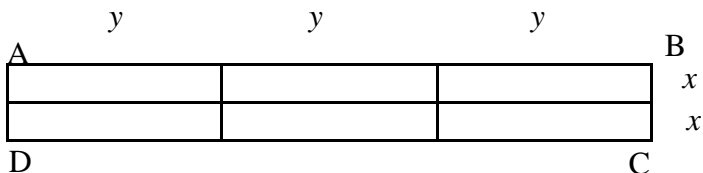


(Level 2)

4. The external perimeter of the rectangular field ABCD is 52m and the overall area is 168m^2 .

a) Express the perimeter and the area of ABCD in terms of x and y .

b) Find x and y .



Solutions

1. $x = 0.4, y = 0.8$
2. $x = -3, y = 6$ or $x = 4, y = -1$
3. a) draw $y = 2x - 10$. $x = -4, y = -18$ or $x = 3, y = -4$
b) draw $y = 2x$. $x = 1$ or $x = -2$.
4. $x = 6, y = \frac{14}{3}$ or $x = 7, y = 4$