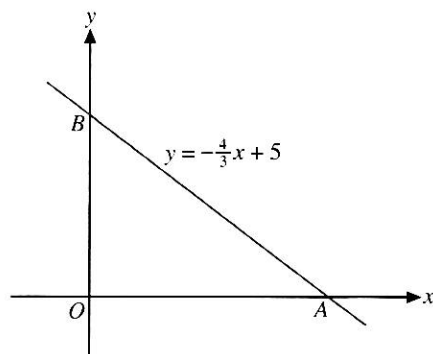


## Revision Practice 4



1.



In the diagram, the graph of  $y = -\frac{4}{3}x + 5$  cuts the axes at  $A$  and  $B$ . Find

- (a) the coordinates of  $A$  and  $B$ ,  
 (b) the gradient of the graph.

2. Some water is heated in a kettle. Its temperature  $y$  °C at time  $t$  minutes is given by  $y = 20 + 8t$ , where  $0 \leq t \leq 10$ .

(a) Find the temperature of the water when

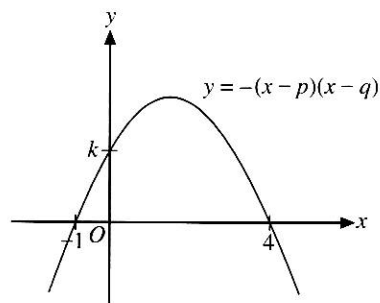
- (i)  $t = 0$ ,  
 (ii)  $t = 3$ ,  
 (iii)  $t = 8$ .

(b) Draw the graph of  $y = 20 + 8t$  for  $0 \leq t \leq 10$ .

(c) How is the value '8' in the equation  $y = 20 + 8t$  related to the heating?

3. The diagram shows the graph of the quadratic function  $y = -(x - p)(x - q)$ , where  $p < q$ .

- (a) Find the values of  $p$ ,  $q$  and  $k$ .  
 (b) Find the equation of the line of symmetry of the graph.



4. The diagram shows the graph of  $y = 25 - x^2$ . Find

- (a) the area of  $\triangle OAC$ ,  
 (b) the gradient of the line  $AC$ ,  
 (c) the gradient of the graph at  $C$ .

