# Revision Practice 11

1. The vertices of $\triangle ABC$ are $A(2, 3)$, $B(-2, 2)$ and $C(-1, -2)$.
   (a) Find the lengths of AB, BC and CA.
   (b) What type of triangle is $\triangle ABC$?
   (c) Find the area of $\triangle ABC$.

2. A point R on the y-axis is such that it is equidistant from two points $A(2, 5)$ and $B(4, -3)$. Find the coordinates of R.

3. Two points $A(-5, 4)$ and $B(3, 2)$ are given and joined by a straight line. Find
   (a) the gradient of the line AB,
   (b) the equation of the line AB,
   (c) the equation of the line passing through the origin and having the same gradient as AB.

4. The line $2x - 5y + 20 = 0$ cuts the x-axis at A and the y-axis at B. Find
   (a) the coordinates of A and B,
   (b) the length of AB.

5. The graph of the line $y = \dfrac{1}{2}x - 1$ is shown in the diagram. Copy the diagram

   and draw the graphs of $y = \dfrac{1}{2}x + 1$ and $y = -\dfrac{1}{2}x - 1$ on it.
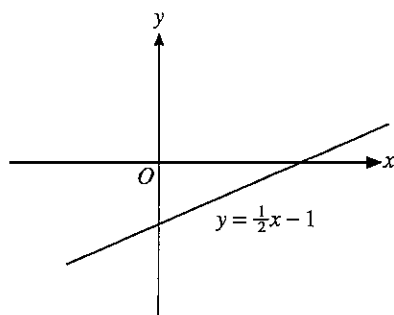
6. The graph of $y = (3x + 2)(x - 4)$ cuts the x-axis at A and B, and the y-axis at C. Find
   (a) the coordinates of A, B and C,
   (b) the distance AB,
   (c) the area of $\triangle ABC$,
   (d) the equation of the line BC.