



## Exercise 5.1

### Basic Practice

1. (a) Copy and complete the following table of values of  $x$  and  $y$  for the equation  $y = 2x - 1$ .

$x$	-1	0	1	2
$y$				

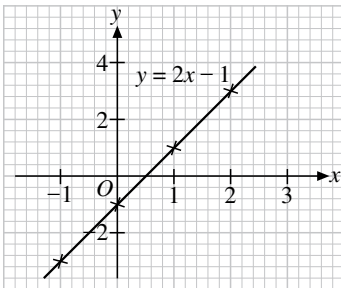
- (b) Draw the graph of  $y = 2x - 1$  for  $-1 \leq x \leq 3$ .  
 (c) Is  $\left(\frac{3}{2}, 2\right)$  a solution of the equation  $y = 2x - 1$ ?

**Solution**

- (a)  $y = 2x - 1$

$x$	-1	0	1	2
$y$	-3	-1	1	3

- (b) The graph of  $y = 2x - 1$  is shown below.



- (c)  $y = 2x - 1$

When  $x = \frac{3}{2}$ ,

$$y = 2\left(\frac{3}{2}\right) - 1 = 2$$

$\therefore \left(\frac{3}{2}, 2\right)$  is a solution of  $y = 2x - 1$ .

2. (a) Copy and complete the following table of values of  $x$  and  $y$  for the equation  $x + y = 5$ .

$x$	0	3	5
$y$			

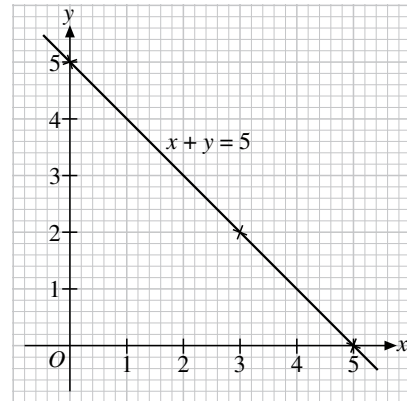
- (b) Draw the graph of  $x + y = 5$  for  $0 \leq x \leq 5$ .  
 (c) If  $\left(1\frac{1}{3}, p\right)$  is a solution of  $x + y = 5$ , find the value of  $p$ .

**Solution**

- (a)  $x + y = 5$

$x$	0	3	5
$y$	5	2	0

- (b) The graph of  $x + y = 5$  is shown below.



- (c) Substituting  $x = 1\frac{1}{3}$ ,  $y = p$  into  $x + y = 5$ ,  
 $\frac{4}{3} + p = 5$   
 $p = \frac{11}{3}$

3. (a) Copy and complete the following table of values of  $x$  and  $y$  for the equation  $x + 3y = 9$ .

$x$	0	3	6	9
$y$				

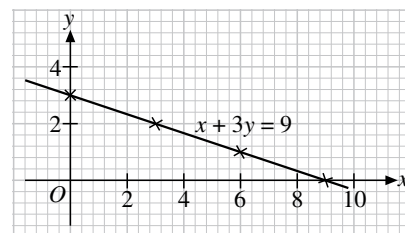
- (b) Draw the graph of  $x + 3y = 9$  for  $0 \leq x \leq 9$ .  
 (c) If  $(4, q)$  is a solution of  $x + 3y = 9$ , find the value of  $q$ .

**Solution**

- (a)  $x + 3y = 9$

$x$	0	3	6	9
$y$	3	2	1	0

- (b) The graph of  $x + 3y = 9$  is shown below.



- (c) Substituting  $x = 4$  and  $y = q$  into  $x + 3y = 9$ ,  
 $4 + 3q = 9$   
 $q = \frac{5}{3}$