



CLASS IX: MATHS  
Chapter 4: Linear in Equations

Questions and Solutions | Exercise 4.1 - NCERT Books

**Q1.** The cost of notebook is twice the cost of a pen. Write a linear equation in two variable to represent this statement.

**Sol.** Let the cost of a pen be Rs.  $x$  and that of a notebook be Rs.  $y$ . We are given that  $y = 2 \times x$  i.e.,  $y = 2x$ . Hence, the required linear equation is  $y = 2x$

**Q2.** Express the following linear equations in the form  $ax + by + c = 0$  and indicate the values of  $a$ ,  $b$  and  $c$  in each case :

- (i)  $2x + 3y = 9.\overline{35}$                       (ii)  $x - y/5 - 10 = 0$   
(iii)  $-2x + 3y = 6$                       (iv)  $x = 3y$   
(v)  $2x = -5y$                               (vi)  $3x + 2 = 0$   
(vii)  $y - 2 = 0$                              (viii)  $5 = 2x$

**Sol.** (i)  $2x + 3y - 9.\overline{35} = 0$

Here,  $a = 2$ ,  $b = 3$ ,  $c = -9.\overline{35}$

(ii)  $x - y/5 - 10 = 0$

i.e.,  $1x + (-1/5)y + (-10) = 0$

Here,  $a = 1$ ,  $b = -1/5$ ,  $c = -10$

(iii)  $-2x + 3y = 6$

i.e.,  $2x - 3y + 6 = 0$ ,

i.e.,  $2x + (-3)y + 6 = 0$

Here,  $a = 2$ ,  $b = -3$ ,  $c = 6$

(iv)  $x = 3y$ , i.e.,  $1x + (-3)y + 0 = 0$

Here,  $a = 1$ ,  $b = -3$ ,  $c = 0$

(v)  $2x = -5y$ , i.e.,  $2x + 5y + 0 = 0$

Here,  $a = 2$ ,  $b = 5$ ,  $c = 0$

(vi)  $3x + 2 = 0$

i.e.  $(3)x + (0)y + (2) = 0$

Here,  $a = 3$ ,  $b = 0$  and  $c = 2$ .



$$(vii) y - 2 = 0$$

$$\text{i.e. } (0)x + (1)y + (-2) = 0$$

Here,  $a = 0$ ,  $b = 1$  and  $c = -2$ .

$$(viii) 5 = 2x$$

$$\Rightarrow 5 - 2x = 0$$

$$\Rightarrow -2x + 0y + 5 = 0$$

$$\Rightarrow (-2)x + (0)y + (5) = 0$$

Here,  $a = -2$ ,  $b = 0$  and  $c = 5$ .

