

# Mathematics

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(Chapter – 3) (Pair of Linear Equations in Two Variables)(Exemplar Problems)  
(Class – X)

## Exercise 3.1

Choose the correct answer from the given four options:

### Question 11:

If  $x = a$ ,  $y = b$  is the solution of the equations  $x - y = 2$  and  $x + y = 4$ , then the values of  $a$  and  $b$  are, respectively

(A) 3 and 5

(B) 5 and 3

(C) 3 and 1

(D) -1 and -3

### Answer 11:

(C) 3 and 1

### Solution:

If  $x = a$ ,  $y = b$  is the solution of the equations  $x - y = 2$  and  $x + y = 4$ ,

We have

$$a - b = 2 \quad \dots(i)$$

$$\text{and } a + b = 4 \quad \dots(ii)$$

Adding equations (i) and (ii), we get

$$2a = 6 \quad \text{or } a = 3$$

Putting the value of  $a$  in equation (ii), we get

$$3 + b = 4 \quad \text{or } b = 1.$$

Hence, the option (C) is correct.

