

We observe in Fig. 3.4, that the lines do not intersect anywhere, i.e., they are parallel.

So, we have seen several situations which can be represented by a pair of linear equations. We have seen their algebraic and geometric representations. In the next few sections, we will discuss how these representations can be used to look for solutions of the pair of linear equations.

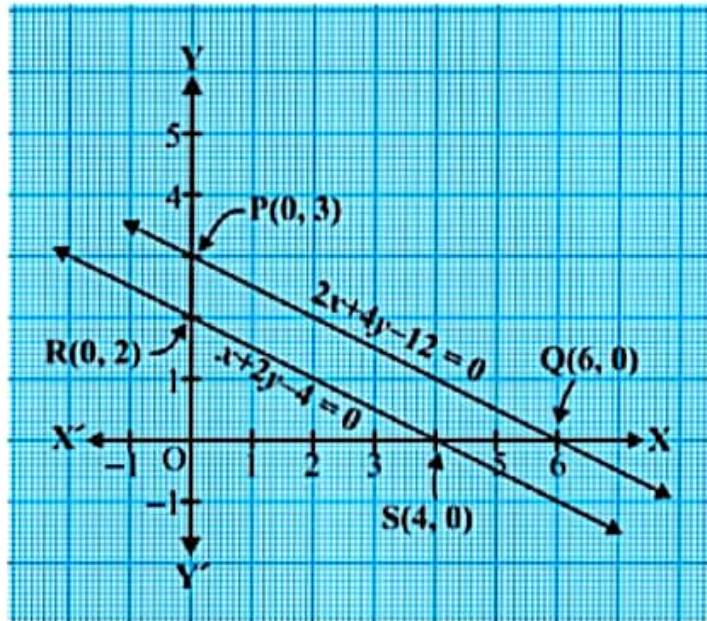


Fig. 3.4

### EXERCISE 3.1

1. Aftab tells his daughter, "Seven years ago, I was seven times as old as you were then. Also, three years from now, I shall be three times as old as you will be." (Isn't this interesting?) Represent this situation algebraically and graphically.
2. The coach of a cricket team buys 3 bats and 6 balls for ₹ 3900. Later, she buys another bat and 3 more balls of the same kind for ₹ 1300. Represent this situation algebraically and geometrically.
3. The cost of 2 kg of apples and 1 kg of grapes on a day was found to be ₹ 160. After a month, the cost of 4 kg of apples and 2 kg of grapes is ₹ 300. Represent the situation algebraically and geometrically.

### 3.3 Graphical Method of Solution of a Pair of Linear Equations

In the previous section, you have seen how we can graphically represent a pair of linear equations as two lines. You have also seen that the lines may intersect, or may be parallel, or may coincide. Can we solve them in each case? And if so, how? We shall try and answer these questions from the geometrical point of view in this section.

Let us look at the earlier examples one by one.

- In the situation of Example 1, find out how many rides on the Giant Wheel Akhila had, and how many times she played Hoopla.

In Fig. 3.2, you noted that the equations representing the situation are geometrically shown by two lines intersecting at the point (4, 2). Therefore, the