



Linear Inequations Ex 15.5 Q1

We have,

$$\begin{aligned} x + 2y - y &\leq 0 \\ \Rightarrow x + y &\leq 0 \end{aligned}$$

Converting the given inequation into equation we obtain, $x + y = 0$.

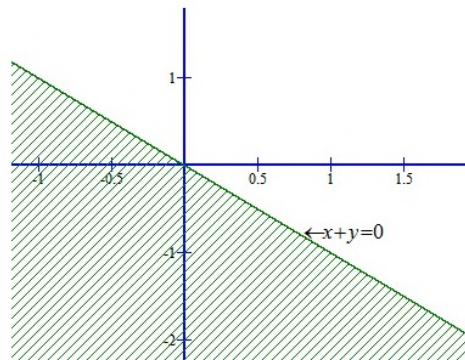
Putting $y = 0$, we get $x = 0$

Putting $x = 0$, we get $y = 0$

Putting $x = 3$, we get $y = -3$.

We plot these points and join them by a thick line. This line divides the xy -plane in two parts. To determine the region represented by the given inequality consider the inequality.

So, the region containing the origin is represented by the given inequation as show below:



This region represents the solution set of the given inequations.

Linear Inequations Ex 15.5 Q2

We have,

$$x + 2y \geq 6$$

Converting the inequation into equation, we obtain, $x + 2y = 6$.

Putting $y = 0$, we get $x = 6$

Putting $x = 0$, we get $2y = 6 \Rightarrow y = 3$

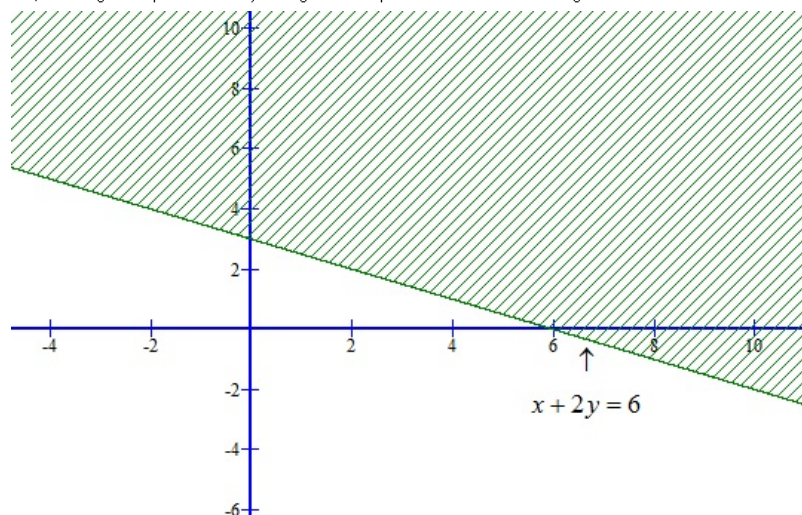
We plot these points and join them by a thick line. This line divides the xy -plane in two parts. To determine the region represented by the given inequality consider the point $O(0,0)$.

Putting $x = 0$ and $y = 0$ in (i) we get, $0 \geq 6$

It is not possible.

Clearly, $O(0,0)$ does not satisfies the inequality.

So, the region represented by the given inequation is the shaded region shown below:



***** END *****

