



Linear Inequations Ex 15.5 Q5

We have,

$$-3x + 2y \leq 6 \dots\dots\dots (i)$$

Converting the given inequation into equation, we obtain, $-3x + 2y = 6$.

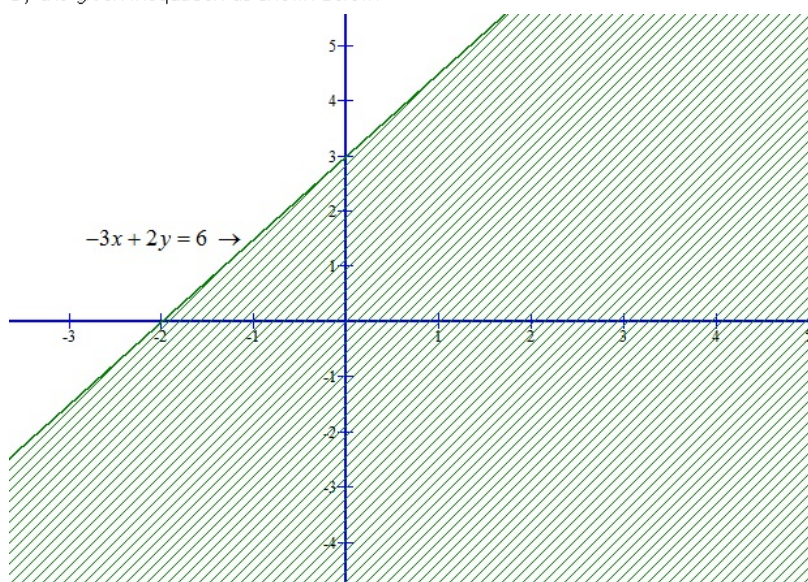
$$\text{Putting } x = 0, \text{ we get } y = \frac{6}{2} = 3$$

$$\text{Putting } y = 0, \text{ we get } x = \frac{-6}{-3} = -2$$

we plot these points and join them by a thick line. This line meets x-axis at $(-2, 0)$ and y-axis at $(0, 3)$. This line divides the xy -plane into two parts. To determine the region represented by the given inequality, consider the point $O(0, 0)$.

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

Clearly, $(0, 0)$ satisfies the inequality. So the region containing the origin is represented by the given inequation as shown below.



Linear Inequations Ex 15.5 Q6

We have,

$$x \leq 8 - 4y \dots\dots\dots (i)$$

Converting the given inequation into equation, we obtain, $x = 8 - 4y$.

$$\text{Putting } y = 0, \text{ we get } x = 8$$

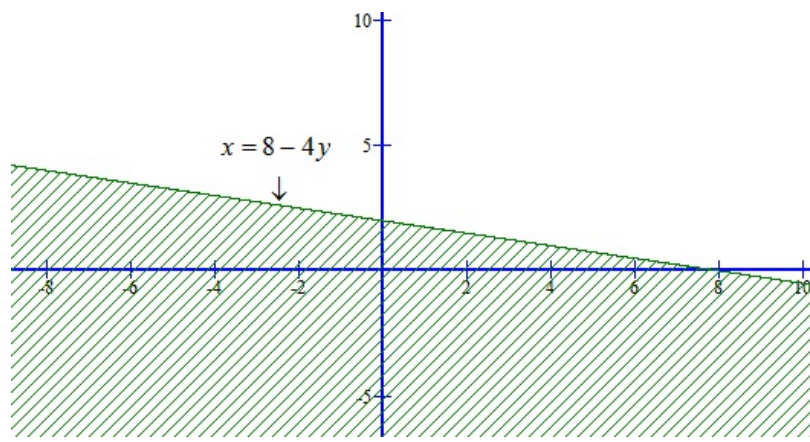
$$\text{Putting } x = 0, \text{ we get } y = \frac{8}{4} = 2$$

So, this line meets x-axis at $(8, 0)$ and y-axis at $(0, 2)$.

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 the given inequality consider the point $O(0, 0)$.

Putting $x = 0$ and $y = 0$ in the inequation (i), we get $0 \leq 8$

Clearly, $(0, 0)$ satisfies the inequality. so, the region containing the origin is represented by the given inequation as shown below:



***** END *****