Linear Inequations Ex 15.5 Q5

We have,

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

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

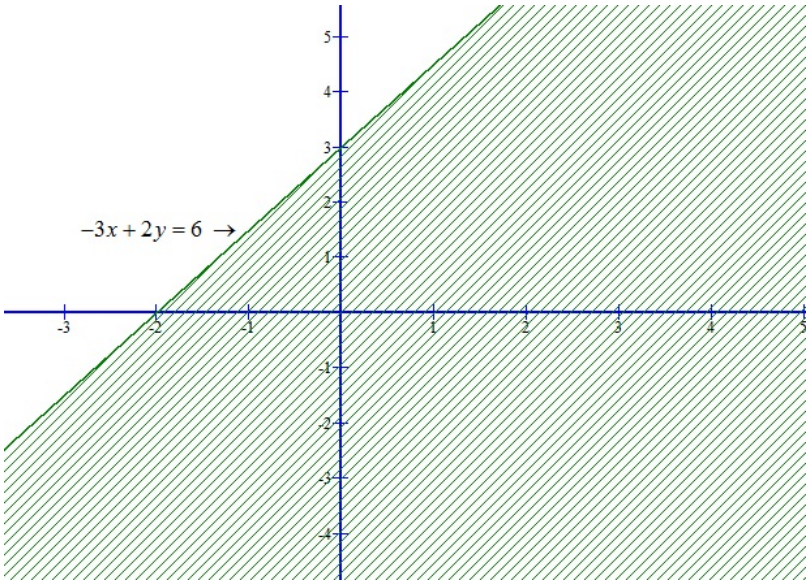
Putting $x = 0$, we get $y = \frac{6}{2} = 3$

Putting $y = 0$, 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-plan 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,

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

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

Putting $y = 0$, we get $x = 8$

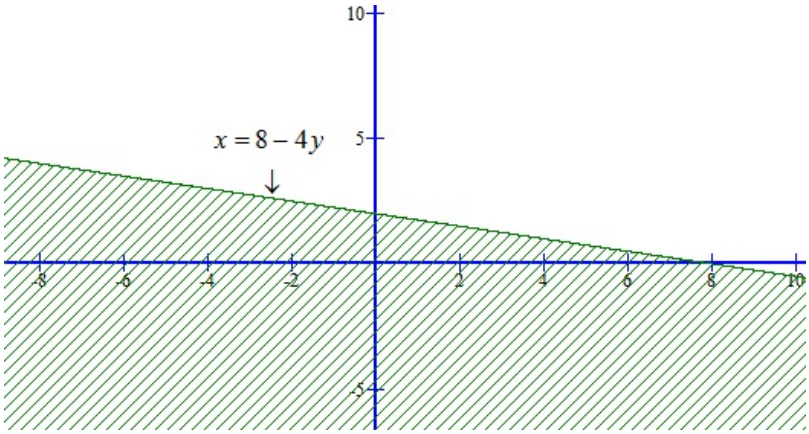
Putting $x = 0$, we get $y = \frac{8}{4} = 2$

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:



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