Linear Inequations Ex 15.5 Q3

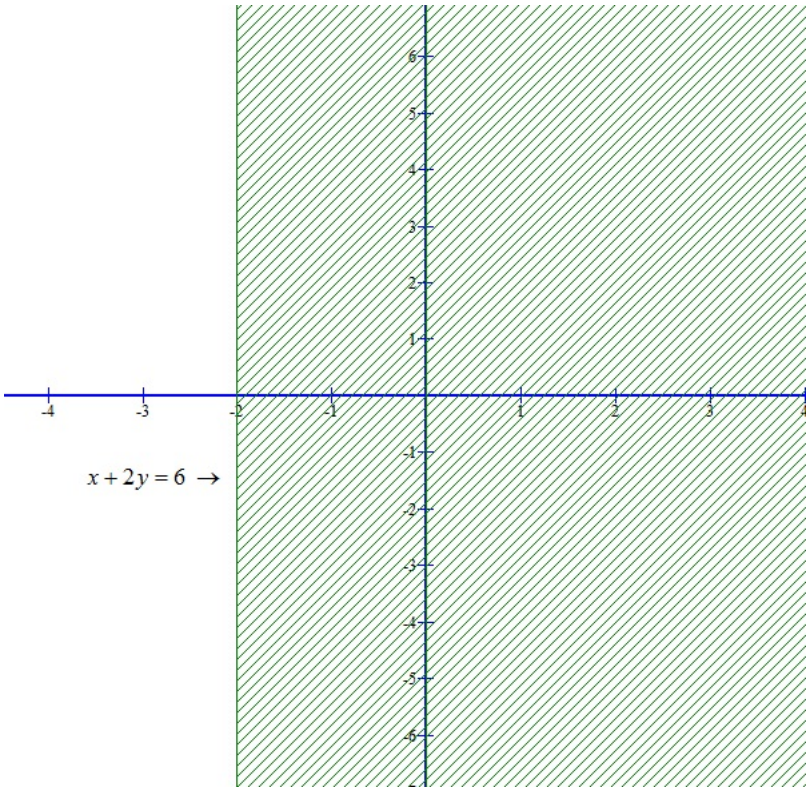
We have,

$$x + 2 \geq 0 \ldots\ldots\ldots\ldots\ldots\ldots (i)$$

Converting the inequation into equation, we obtain, $x = -2$. Clearly, it is a line parallel to y-axis. This line divides the xy – plane in two parts. One part on the LHS of $x = -2$ and the other on its RHS.

Putting $x = 0$ in the inequation (i), we get $2 \geq 0$

we find that the point $(0,0)$ satisfies the inequality. So, the region represented by the given inequation is the shaded region shown below:



Linear Inequations Ex 15.5 Q4

We have

$$x - 2y < 0$$

Converting the inequation into eqaution, we obtain,

$$x < 2y$$

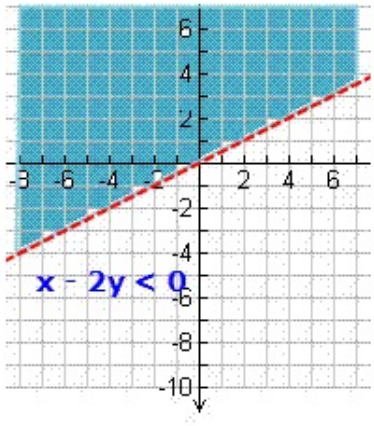
To determine the region represented by the given inequality consider the point $o(0,0)$

Putting $x = 0$ and $y = 0$ in equation we have

$$0 < 0$$

It is not possibvle.Clearly $o(0,0)$ does not satisfy the inequality.

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



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