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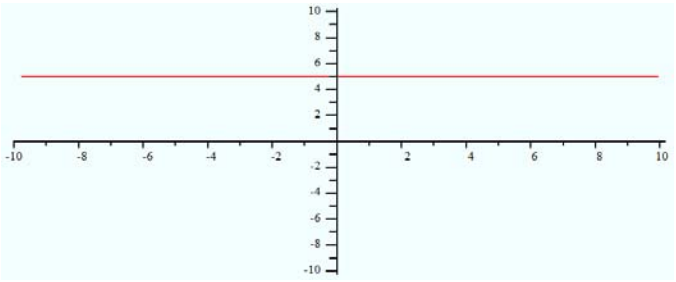
Simultaneous Linear Equations - Guided Lesson Explanation

Explanation # 1

The first equation is $y = 5$

This equation tells you that every y-value is 5. Plot some points that have a y-value of 5, like (0, 5 and (1, 5), and then draw a line connecting them.



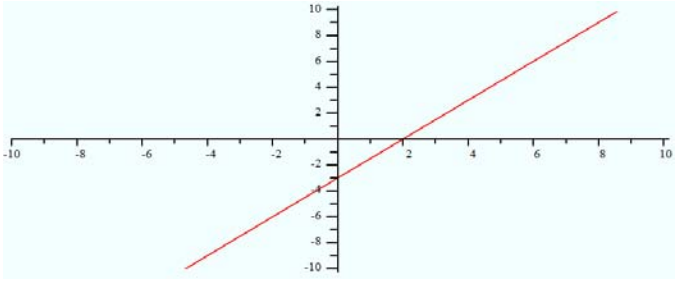
Step 2) The second equation is:

$$y = \frac{3}{2}x - 3$$

The y-intercept is -3. Plot the point (0, -3).

The slope is $\frac{3}{2}$. Move up 3 and right 2 to find another point on the line.

Draw a line connecting them.



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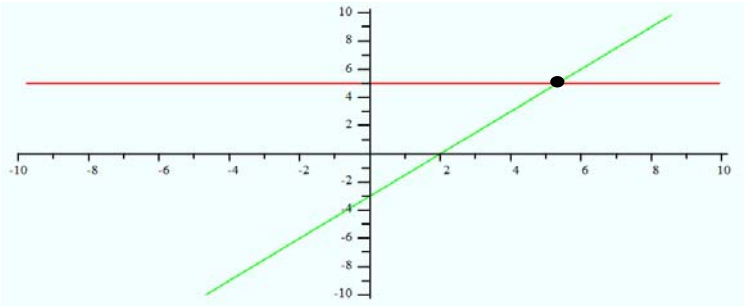
Step 3) Finally, identify the point of intersection.

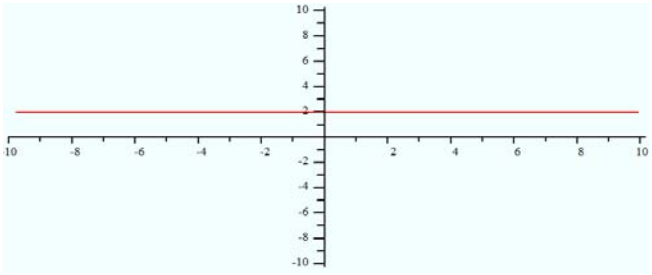


The lines intersect at (5.3, 5), so the solution to the system of equations is (5.3, 5).

Explanation#2

The first equation is $y = 2$

This equation tells you that every y-value is 2. Plot some points that have a y-value of 2, like (0, 2 and (1, 2), and then draw a line connecting them.



Step 2) The second equation is:

$y = \frac{6}{3}x - 2$

The y-intercept is -2. Plot the point (0, -2).

The slope is $\frac{6}{3}$. Move up 6 and right 3 to find another point on the line.

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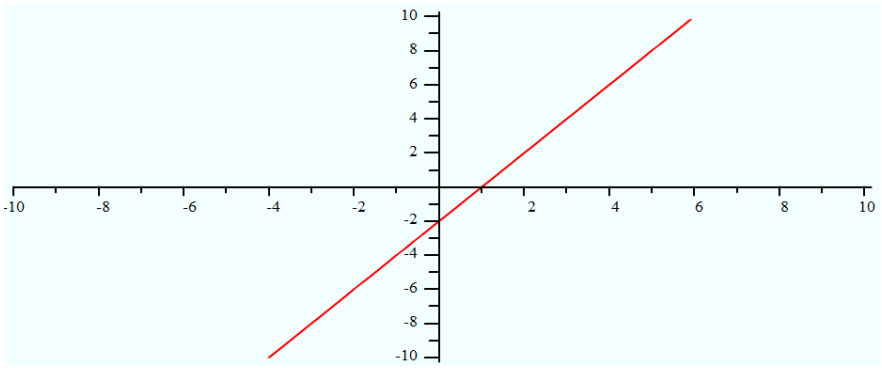
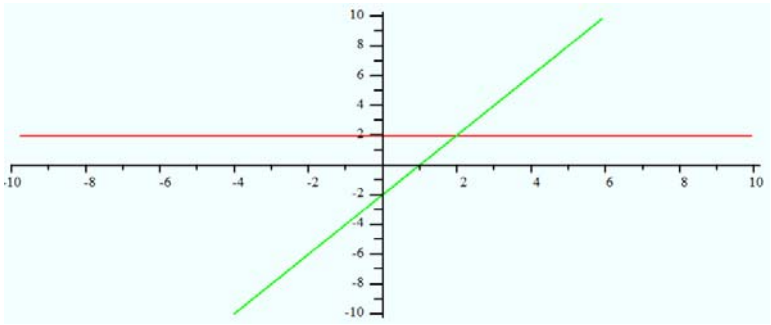
Draw a line connecting them.



Step 3) Finally, identify the point of intersection.

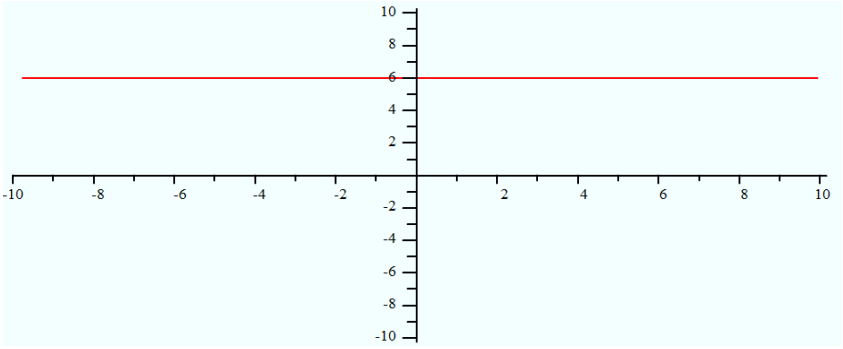


The lines intersect at (2, 2), so the solution to the system of equations is (2, 2).

Explanation # 3

The first equation is $y = 6$

This equation tells you that every y-value is 6. Plot some points that have a y-value of 6, like (0, 6 and (1, 6), and then draw a line connecting them.



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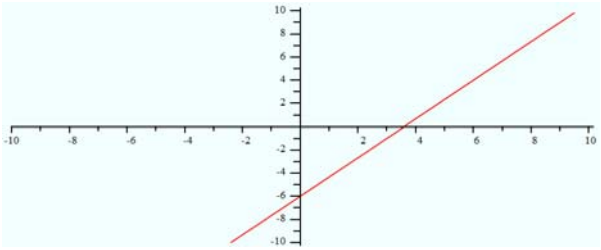
Step 2) The second equation is:

$y = \frac{5}{3}x - 6$

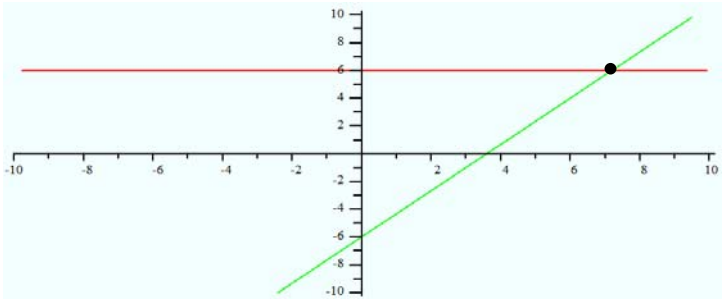
The y-intercept is -6. Plot the point (0, -6).

The slope is $\frac{5}{3}$. Move up 5 and right 3 to find another point on the line.

Draw a line connecting them.



Step 3) Finally, identify the point of intersection.



The lines intersect at (7.2, 6), so the solution to the system of equations is (7.2, 6).