

Lesson Plan

Grade 10 Academic Math

Lesson: 2 - 1

Unit: Linear Systems

Topic: Prerequisite Skills

✎ homework check: None

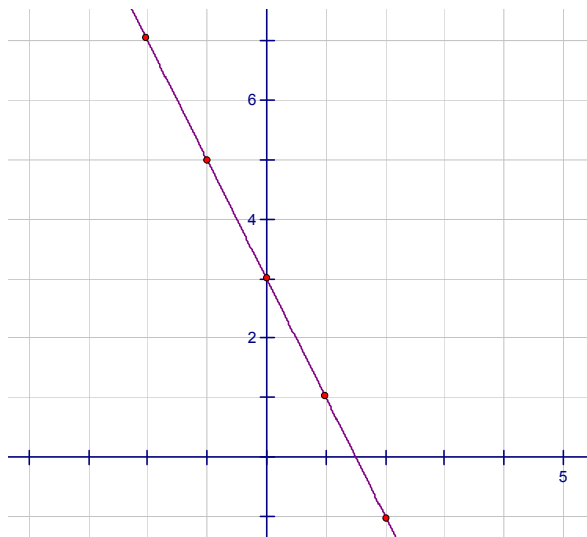
✎ note: Prerequisite Skills

Solving equations is another very important skill much like factoring. To solve an equation means systematically isolating the unknown variable to find the value. For example,

$$\begin{array}{ll}
 a) & 3(x+2) - 5 = 7 \\
 & 3x + 6 - 5 = 7 \\
 & 3x + 1 = 7 \\
 & 3x = 6 \\
 & x = 2 \\
 b) & \frac{2x}{3} + \frac{x-1}{2} = -4 \\
 & 6\left(\frac{2x}{3}\right) + 6\left(\frac{x-1}{2}\right) = 6(-4) \\
 & 4x + 3(x-1) = -24 \\
 & 4x + 3x - 3 = -24 \\
 & 7x = -21 \\
 & x = -3
 \end{array}$$

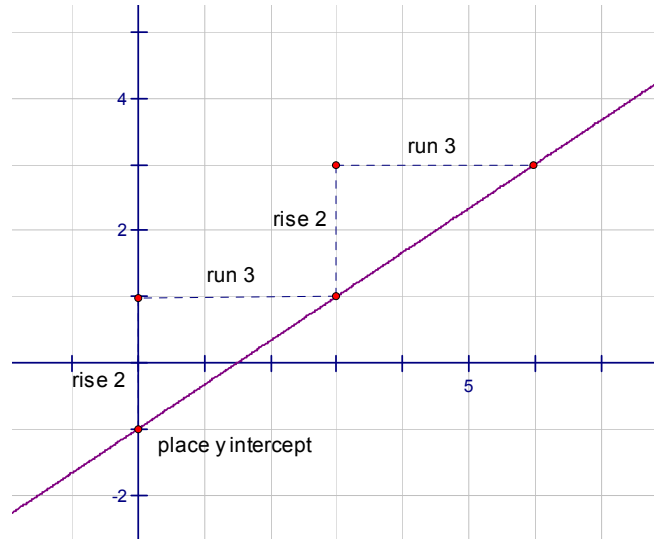
Graphing an equation involves one of two methods: a table of values or use of the slope and y intercept. For example, complete a table of values to graph $y = -2x + 3$.

x	y
-2	7
-1	5
0	3
1	1
2	-1



Graph the function $y = \frac{2}{3}x - 1$ using the slope and y intercept.

$$m = \frac{2}{3}, b = -1$$



Identifying solutions as ordered pairs can be done using a method to check your answer. For example, is the point $(1, -2)$ a solution of $y = 5x - 1$? (This question really asks if $x = 1$ does $y = -2$.)

If we substitute the value of $x = 1$, we find

$$y = 5(1) - 1$$

$$y = 4$$

Because $y \neq -2$, the point $(1, -2)$ is not a solution.

📅 homework assignment: Principles of Mathematics 10 p. 5 # 2 - 13