4.01 Graphing a Line

Basic Algebra: One Step at a Time, **Pages 309-312.**

Extra Problem: 19

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19. $y = \dfrac{1}{3}x$

This problem looks different from all that preceded it because of the fraction. However, don't let this intimidate you! Remember, all you need to do is choose values of x, and then find the appropriate values of y. In this case as most of the problems before, start with x=0. However, for the rest of the values you are selecting for x, choose values of x that will make calculation of y as easy as possible. In other words, choose values of x that are multiples of 3, like 3, 6, 9, etc.

If x=0, then $y = \dfrac{1}{3}x$, $y = \dfrac{1}{3} \bullet 0$, so y=0.

If x=3, then $y = \dfrac{1}{3}x$, $y = \dfrac{1}{3} \bullet 3$, so y=1.

If x=6, then $y = \dfrac{1}{3}x$, $y = \dfrac{1}{3} \bullet 6$, so y=2.

If x=9, then $y = \dfrac{1}{3}x$, $y = \dfrac{1}{3} \bullet 9$, so y=3.

Graph the points $(0,0),\ (3,1),\ (6,2),\ (9,3)$.

The graph should look like this:

$$y = \dfrac{1}{3}x$$

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