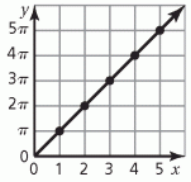
Section 6.3: Linear Functions
p. 263 (#1-11)

1) Yes, because the graph would be a nonvertical line. If b = 0, then the line passes through the origin. If there is an *m* number, then the line cannot be vertical.

2) There is more than one possible output value when $x = 3$.

3) This equation represents the formula for the circumference of a circle.

3. $y = \pi x$; x is the diameter; y is the circumference.



4) This equation represents the formula for calculating the diameter of a circle that has the given (x) radius. Your graph should go up two squares for every square that it goes to the right.

5) $y = \frac{4}{3}x + 2$

6) $y = -4x - 2$

7) $y = 3$, which means $y = 0x + 3$

8) $y = 2x$

9) $y = -\frac{1}{4}x$

10) $y = \frac{2}{3}x + 5$

11a) independent variable: movies (x)
dependent variable: cost (y)
b) $y = 3x$. Each movie costs \$3. It doesn't matter how many movies that you see.
c) Your graph should go through the origin, and go up 3 spaces for every space that it goes to the right.
d) \$9