20 Linear Functions

Due: 12/13/2015 at 06:00am EST.

Students will be able to:
• Identify the graph of linear functions
• Find the slope and y-intercept of a graph of a linear function
• Find an equation of a linear function given the slope and y-intercept

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt)
Match each function with its graph A-F. The constants $k$ and $s$ are the same in each function.

- $f(x) = 2s - kx$
- $f(x) = ks - s$
- $f(x) = kx$
- $f(x) = 2s - 2ks$
- $f(x) = s$

(Click on graph to enlarge)

2. (1 pt) Give the slope and y-intercept for the graph of the function $f(x) = \frac{x}{5} - 4$.

The slope is ________
The y-intercept is ________

3. (1 pt) Give the slope and y-intercept for the graph of the function $f(x) = 15 - 3(2 - 2x)$.

The slope is ________
The y-intercept is ________

4. (1 pt) Give the slope and y-intercept for the graph of the function $f(x) = 254 - 8x$.

The slope is ________
The y-intercept is ________

5. (1 pt) Decide whether the following function is linear or not:

$$g(w) = -\frac{3 - 16w}{7}$$

If so write the equation in slope-intercept form, $g(w) = mw + b$, and enter the values for $m$ and $b$ in the blanks below. If the expression is not linear, write none in both blanks.

$m =$ ________
$b =$ ________

6. (1 pt) Find an equation for the linear function which has y-intercept 8 and x-intercept 11.

$f(x) =$ ________