

A. Lesson Context

BIG PICTURE of this UNIT:	<ul style="list-style-type: none"> • What is meant by the term FUNCTIONS and how do we work with them? • mastery with working with basics & applications of linear functions • mastery with working with basics & applications of linear systems • understanding basics of function concepts and apply them to lines & linear systems 		
CONTEXT of this LESSON:	<p>Where we've been</p> <p>In Lesson 1, you reviewed linear relations and learned some basic function ideas</p>	<p>Where we are</p> <p>Working with basic function concepts, independent of linear relations from last lesson</p>	<p>Where we are heading</p> <p>Mastery of working with multiple representations of $f(x) = mx + b$</p>

B. Lesson Objectives

- Find the domain and range of a relation.
- Identify if a relation is a function or not.
- Work with function notation & evaluating functions.
- Work with function notation in application based problems.

C. Fast Five (Skills Review Focus)

a. Solve $2x - 6 + 3x = 3(x + 1) - 5$

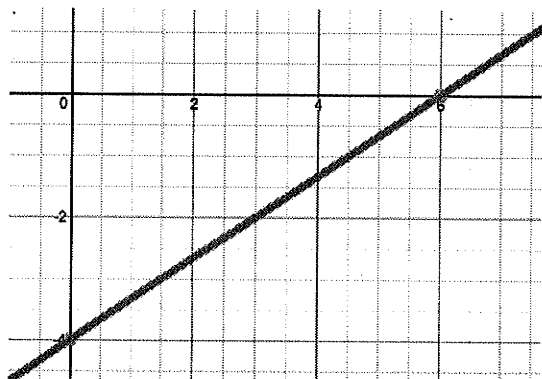
$$2x - 6 + 3x = 3x + 3 - 5$$

$$2x - 6 = -2$$

$$2x = 4$$

$$x = 2$$

c. Write the equation of the line graphed below.



$$y = \frac{2}{3}x - 4$$

b. State the slope and y-intercept of the line $y = -2x + 5$

$$m = -2$$

$$y\text{-int} = (0, 5)$$

d. Evaluate $f(2)$ if $f(x) = -\frac{1}{4}x + 1$

$$f(2) = -\frac{1}{4}(2) + 1 = -\frac{1}{2} + 1 = \frac{1}{2}$$

e. Evaluate $f(6) = 2^{3-x}$.

$$f(6) = 2^{3-6} = 2^{-3} = \frac{1}{8}$$

f. Solve $4 = f(x)$ if $f(x) = -2x + 10$ for x .

$$4 = -2x + 10$$

$$-6 = -2x$$

$$3 = x$$