

Name: \_\_\_\_\_  
 Period \_\_\_\_\_

Date: \_\_\_\_\_  
 Henderson - Math 8

## Homework for Week 15

**Tuesday: HW# 15A** (go to [www.khanacademy.org](http://www.khanacademy.org) or [www.hendersonmath.com](http://www.hendersonmath.com) for review) Find the solution to the system of equations graphically:

1.)  $y = 2x + 5$  **A**  
 $y = x + 4$  **B**

$(-1, 3)$   
**Point of intersection**

2.)  $y = -2x + 3$   
 $y = \frac{1}{2}x + 3$

$(0, 3)$   
**Point of intersection**

3.)  $y = 3x + 0$   
 $y = -2x + 10$

$(2, 6)$   
**Point of intersection**

**Wed: HW#15B** (go to [www.khanacademy.org](http://www.khanacademy.org) or [www.hendersonmath.com](http://www.hendersonmath.com) for review)

State if the equation shown is a linear function or not a linear function.

4.)  $y = 3x + 5$  linear

5.)  $y = 4x^2 - 9$  non-linear

6.)  $y = \frac{2}{x} + 9$  non-linear

$4x - 3y = 9$  linear

$\frac{x}{5} + y = 10$  linear

$y = \sqrt{x} + 6$  non-linear

Determine if the graph or table is a **FUNCTION** or **NOT a function**.

7.)

Function

8.)

Not a Function

9.)

x	y
2	3
4	2
2	-5
6	-3

Not a Function

Thursday: HW#15C (go to [www.khanacademy.org](http://www.khanacademy.org) or [www.hendersonmath.com](http://www.hendersonmath.com) for review)

10.) Maria says that the relation shown is a function.

$$\{(2, 3), (3, 4), (5, 9)\}$$

Is Maria correct? Explain on the lines below how you determined your answer.

**Maria is correct. It is a function because there are no repeating x-values with different y-values.**

11.) Solve.  $6x + 8 - 2x = 4(x + 2)$

$$4x + 8 = 4x + 8$$

Left matches the right

Infinite solutions

12.) Find the rate of change for the following data:

$$(6, 2) \text{ and } (6, -4) \quad \frac{2 + 4}{6 - 6} = \frac{6}{0}$$

Answers

12) undefined

13.) Identify the rate of change in the following linear equation:

$$4y = 3x + 8 \quad y = \frac{3}{4}x + 2$$

13)  $\frac{3}{4}$

14) B

15) A

14.) Which of the following is NOT a linear equation?

a)  $y = 7x + 3$

b)  $y = 2x - 9$

c)  $y = x$

d)  $6x + 3y = 6$

15.) Which of the following graphs is NOT a linear equation?

