

HW #20 - ANSWERS

Name: _____
 Period _____

Date: _____ **ZU**
 Henderson - Math 8

Homework for Week 20

Monday: HW#20A

Identify if the relation shown is a FUNCTION or NOT a FUNCTION.

1.)

X	Y
0	3
2	2
4	3

FUNCTION

X	Y
-1	8
	2
	-1

**NOT a
function**

X	Y
6	12
7	12
8	12

FUNCTION

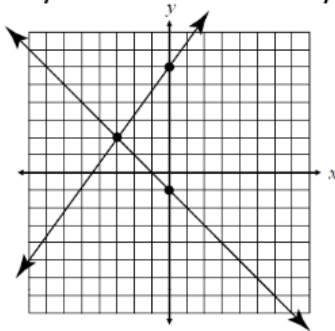
X	Y
1	0
4	8
7	16

FUNCTION

Tuesday: HW#20B

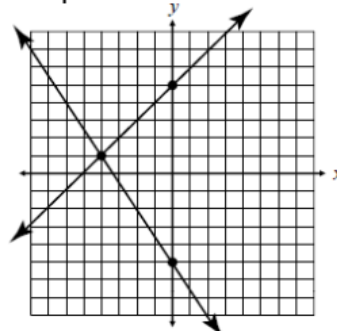
Identify the solution to the system of equations.

2.)



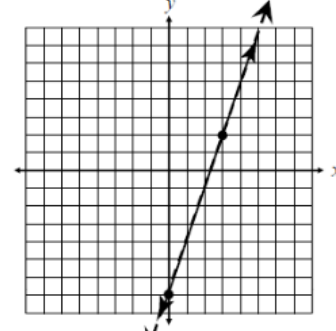
(-3, 2)

3.)



(-4, 1)

4.)



Infinite Solutions

Find the rate of change from the given points.

5.) (1, 2) (6, 2)

$$\frac{2 - 2}{6 - 1} = \frac{0}{5} = 0$$

6. (-3, 9) (3, 2)

$$\frac{2 - 9}{3 - (-3)} = \frac{-7}{6}$$

7. (5, -8) (5, -2)

$$\frac{-2 - (-8)}{5 - 5} = \frac{6}{0} = \text{undefined}$$

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Wednesday: HW#20C

Write each expression using **positive exponents**.

8.) $4^{10} \cdot 4^{-6}$ 4^4 $6^9 \cdot 6$ 6^{10} $3r^3 \cdot 6r^8$ $18r^{11}$ x^{-4} $\frac{1}{x^4}$

Write each expression using positive exponents. **Evaluate, if possible.**

9.) x^{-8} $\frac{1}{x^8}$ 3^{-4} $\frac{1}{3^4} = \frac{1}{81}$ 7^{-2} _____ $9m^{-2}$ $\frac{9}{m^2}$

10.) $\frac{4^{10}}{4^7}$ $4^3 = 64$ $\frac{a^4}{a^{-6}}$ a^{10} $\frac{3^5}{3^9}$ $3^{-4} = \frac{1}{3^4} = \frac{1}{81}$ $\frac{5^6}{5^6}$ $5^0 = 1$

SIMPLIFY.

11.) $3^{-8} \times 3^4$ $3^{-4} = \frac{1}{3^4} = \frac{1}{81}$ $8^5 \times 8^{-2}$ $8^3 = 512$

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Thursday: HW#20D

Solve each equation.

12. $-61 = 8 - \frac{1}{3}(12w + 42) - w$

$$-61 = 8 - 4w - 14 - w$$

$$\begin{array}{r} -61 = -6 - 5w \\ +6 \quad +6 \\ \hline \end{array}$$

$$\begin{array}{r} -55 = -5w \\ \hline -5 \quad -5 \end{array}$$

$$\boxed{11 = w}$$

14. $6r - 5 = 1 + 8r - 24$

$$\begin{array}{r} 6r - 5 = 8r - 23 \\ -6r \quad -6r \\ \hline \end{array}$$

$$\begin{array}{r} -5 = 2r - 23 \\ +23 \quad +23 \\ \hline \end{array}$$

$$-18 = 2r$$

$$\boxed{r = -9}$$

13. $-42 = 5(2c + 9) - 3(c + 8)$

$$-42 = 10c + 45 - 3c - 24$$

$$\begin{array}{r} -42 = 7c + 21 \\ -21 \quad -21 \\ \hline \end{array}$$

$$\begin{array}{r} -63 = 7c \\ \hline 7 \quad 7 \end{array}$$

$$\boxed{-9 = c}$$

15. $-6(n - 3) = 5(4 - n)$

$$\begin{array}{r} -6n + 18 = 20 - 5n \\ +6n \quad +6n \\ \hline \end{array}$$

$$18 = 20 + n$$

$$\begin{array}{r} -20 \quad -20 \\ \hline \end{array}$$

$$\boxed{-2 = n}$$