## Section #1: Vocabulary (words and/or diagrams)

## **Define each:**

- Inconsistent Equation \_\_\_\_\_\_
- Identity Equation \_\_\_\_\_\_
- Average Rate of Change \_\_\_\_\_\_
- Direct Variation \_\_\_\_\_
- Constant of Variation \_\_\_\_\_\_
- System of Equations -

## Section #2: Formulas/Equations/Rules

- Average rate of Change
- Slope-Intercept Form of Linear Equation
- Point-Slope Form of Linear Equation
- Direct Variation

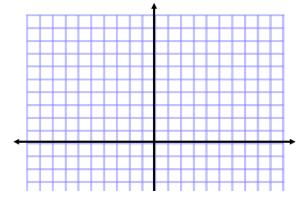
## Section #3: Key methods and concepts (Show how you arrived at each answer))

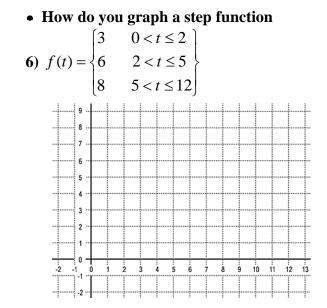
• How do you evaluate a piecewise function

$$h(x) = \begin{cases} x+3 & \text{if } x < -2 & 1 \end{pmatrix} \quad h(-2) = & 3 \end{pmatrix} \quad h(-1) = \\ x^2 & \text{if } -2 \le x < 1 \\ -x+2 & \text{if } x \ge 1 & 2 \end{pmatrix} \quad h(1) = & 4 \end{pmatrix} \quad h(-5) = \\ \end{cases}$$

• How do you graph a piecewise function

5) 
$$f(x) = \begin{cases} x^2 & \text{if } x < 2\\ 6 & \text{if } x = 2\\ 10 - x & \text{if } x > 2 \text{ and } x \le 6 \end{cases}$$





• How can you tell whether the equation is an identity or inconsistent

7) 
$$7 - 5(x - 6) + 4 = 3 - 2(x - 5) - 3x + 28$$

Solution:

Circle one: Identity Inconsistent Neither

8) -4 + 3(x - 1) = x + 2(x - 2) - 1

	Circle one:		
Solution:	Identity	Inconsistent	Neither

9) -5(4x-2) = -2(3+6x)

Circle one: Identity Inconsistent Neither

Solution:

- How do you solve a system of equations with 3 variables
- <sup>10)</sup> -6x+5y+2z = -11-2x+y+4z = -94x-5y+5z = -4

This study guide needs to be NEAT and ORGANIZED!!! (or you may lose credit)

**ANSWERS: 1**) 4 **2**) 1 **3**) 1 **4**) -2 **5**)

7) All real #'s - identity
8) no solution - inconsistent
9) x = 2 - neither
10) (4, 3, -1)

