

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

## Types of Solutions

Team Members:

**Directions:** Clear your desk. Sort the equations into 3 categories. Try to reach consensus as a team for each equations. All team members must be prepared to justify and explain. Show all work on the team paper.

Always True

$$3(x+3) = 3x+9$$

$$x(x+1) = x^2+x$$

$$4(x+2) = 4x+8$$

Sometimes True

$$B. 3x = 9x$$

$$G. 2x+3 = 3x+2$$

$$I. 4x+2 = 10$$

$$J. 2x+1 = 3x$$

$$K. 3(x-3) = -3x+9$$

$$L. x+3 = 3$$

$$M. x+6 = 2x+6$$

$$N. 3x-4 = -3x+2$$

Never True

$$A. 2(x-3) = 2x-3$$

$$D. 2x+1 = 2x-4$$

$$H. 2x = 2x+3$$

$$O. -5x = -5x+2$$

No solution : variables match on both sides only  
 Infinite solution : both variables and terms match  
 One solution : variables do not match on both sides

1) Type of Solution	Equation
No Solution	$2x + 5 = \underline{\hspace{2cm}}$
One Solution	$2x + 5 = \underline{\hspace{2cm}}$
Infinitely Many Solutions	$2x + 5 = \underline{\hspace{2cm}}$

2) Type of Solution	Equation
No Solution	$\underline{\hspace{2cm}} = 8$
One Solution	$\underline{\hspace{2cm}} = 8$
Infinitely Many Solutions	$\underline{\hspace{2cm}} = 8$

3) Type of Solution	Equation
No Solution	$4(2x+3) = \underline{\hspace{2cm}}$
One Solution	$4(2x+3) = \underline{\hspace{2cm}}$
Infinitely Many Solutions	$4(2x+3) = \underline{\hspace{2cm}}$