

2.1 True/False Equations and Solution Sets

Name: _____

Corrective Assignment

Directions: Determine whether the following number sentences are true or false.

1) $(4)3 - (1)3 = (4 - 1)3$

2) $5(6) + 2(3) = 2(3) + 5(6)$

3) $\frac{14}{8} = 2.125$

4) $\frac{1}{3} + \frac{1}{4} = .5833$

Directions: Circle the value(s) for the given variable will make the following equations true.

5) $(x - 3)^2 = 25$

-3 -2 0 4 8

6) $\frac{x+2}{x^2+1} = \frac{6}{17}$

-3 0 4 6 17

7) $g^2 - 5 = -1$

-4 -2 -1 2 4

8) $-g^2 = -9$

-9 -3 0 3 9

9) $4x - 2 = 14$

-4 -1 0 1 4 14

8) $\frac{x}{5} + 2 = 5$

10 15 20 25 30

Directions: Describe the solution set.

9) $x = -7$

Verbally:

Graphically:

Set Notation:

10) $f - 6 \neq -2$

Verbally:

Graphically:

Set Notation:

11) $y^2 = 25$

Verbally:

Graphically:

Set Notation:

12) $2q < -10$

Verbally:

Graphically:

Set Notation:

13) $3(x - 2) = 3x - 6$

Verbally:

Graphically:

Set Notation:

14) $u + 4 = u + 10$

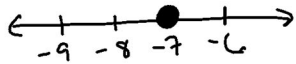
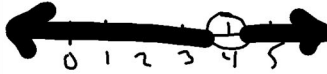
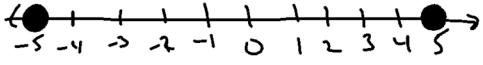
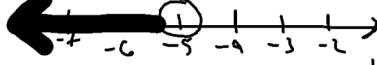
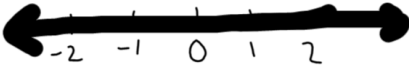
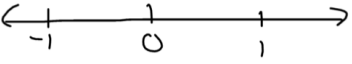
Verbally:

Graphically:

Set Notation:

2.1 True/False Equations and Solution Sets

Corrective Assignment Answers

Directions: Determine whether the following number sentences are true or false.			
1) $(4)3 - (1)3 = (4-1)3$ $12 - 3 = (3)3$ $9 = 9$ TRUE	2) $5(6) + 2(3) = 2(3) + 5(6)$ $30 + 6 = 6 + 30$ $36 = 36$ TRUE	3) $\frac{14}{8} = 2.125$ $1.75 = 2.125$ FALSE	4) $\frac{1}{3} + \frac{1}{4} = .5833$ <i>Repeats</i> $.3333 + .25 = .5833$ FALSE
Directions: Determine what value(s) for the given variable will make the following equations true.			
5) $(x-3)^2 = 25$ $x-3 = 5$ $x = 8$ $x-3 = -5$ $x = -2$	6) $\frac{x+2}{x^2+1} = \frac{6}{17}$ $x+2=6$ $x=4$ $4^2+1=17$ ✓	7) $g^2 - 5 = -1$ $g^2 = 4$ $(2)^2 = 4$ $(-2)^2 = 4$ 2, -2	
8) $-g^2 = -9$ $g^2 = 9$ 3 or -3	9) $4x - 2 = 14$ $4(4) - 2 = 14$ x = 4	8) $\frac{x}{5} + 2 = 5$ $\frac{x}{5} = 3$ $x = 15$	
Directions: Describe the solution set.			
9) $x = -7$ Verbally: The solution set is -7. Graphically:  Set Notation: $\{-7\}$	10) $f - 6 \neq -2$ Verbally: The solution set is all real numbers that don't equal 4. Graphically:  Set Notation: $\{f \text{ real} \mid f \neq 4\}$		
11) $y^2 = 25$ Verbally: The solution set is -5 or 5. Graphically:  Set Notation: $\{-5, 5\}$	12) $2q \leq -10$ Verbally: The solution set is all real numbers such that q is less than or equal to -5. Graphically:  Set Notation: $\{q \text{ real} \mid q \leq -5\}$		
13) $3(x-2) = 3x-6$ $3x-6 = 3x-6$ Verbally: The solution set is all real numbers. Graphically:  Set Notation: \mathbb{R}	14) $u + 4 = u + 10$ $4 = 10$ Verbally: The solution set is the null set. Graphically:  Set Notation: $\{\}$		