#### Do Now

#### Solve the following:

1) 
$$8(3x + 10) = 28x - 14 = 4x$$

24 x + 80 = 24 x - 14

80 = -14

No Solution

2)  $5(3x - 2) = 15x - 10$ 

-15x

-10 = -10

All Real Numbers

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### Types of Solutions

#### Describing a Solution Set of an Equation

The <u>solution set</u> of an equation is the set of all values for the variable which make the equation a true statement.

Solution 
$$9p + 7 - 2p = 14$$
Notation  $7p + 7 = 14$ 
 $7p = 7$ 
 $7p = 7$ 
 $7p = 7$ 
 $7p = 7$ 
 $7p = 7$ 

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## Types of Solutions

When algebraic equations contain a variable, we must determine whether the equation:

Is <u>true for all</u> numbers
 Solution set is written as ℝ



- Is true for a <u>certain set</u> of numbers Solution x = 2, written as {2}
- Is <u>never true</u> for any number
   Solution set is written as { } or

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No Solution

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# Types of Solutions

Solve the equation. Write it's solution set.

1. 
$$15x - 3 = 12x$$
 $-|5x|$ 
 $-$ 

$$\frac{CK}{15x-3=12(1)}$$

$$\frac{15(1)-3=12(1)}{15-3=12}$$

$$\frac{13=12}{12=12}$$

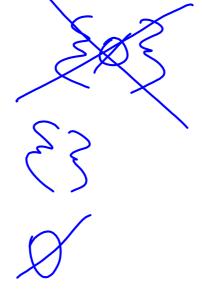
# Types of Solutions

Solve the equation. Write it's solution set.

4. 
$$z-6=z-2$$
+6 +6

 $1z=1z+4$ 
 $-1z=1z$ 

Vo Solution

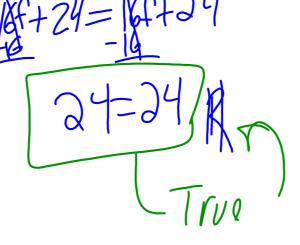


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# Types of Solutions

Solve the equation. Write it's solution set.

6. 
$$16f + 24 = 8(2f + 3)$$



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# Types of Solutions

Solve the equation. Write it's solution set.

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# Types of Solutions

Solve the equation. Write it's solution set.

2. 
$$\frac{2}{3}(3x+6) = 5x-8-2x$$

$$\frac{2}{3}(3x+6) = 5x-8$$

$$\frac{2}{3}(3x+6) = 5x-8$$