# <span style="color:orange">Starter</span>

Simplify the following write your positive exponents.

1. $\dfrac{16x^7}{12x^{-2}}$

Solve the following equations, showing your work!

2. $2x + 2 = 2x + 1$

3. $4x - 2 = 8x + 8$

4. $26 + 2(x + 1) = 4x - 2(x + 9)$

5. $6x + 2 + 9x = 2x + 10$

Answers

Nov 4-1:27 PM
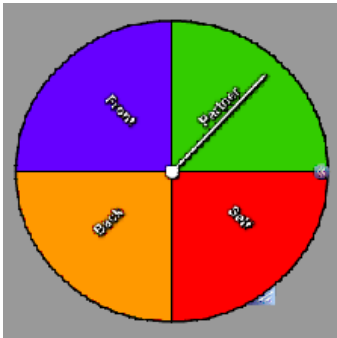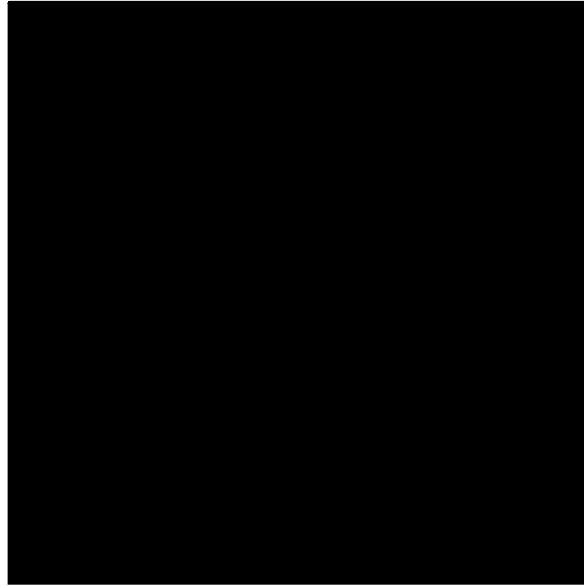


# <span style="color:orange">Starter</span>

Nov 11-8:03 AM

## Word Problem WKS 2

### Completion Points

5 points: 10 problems
4 points: 8-9 problems
3 points: 6-7 problems
2 points: 4-5 problems
1 point: 2-3 problems
0 points: 0-1 problems

Score = Completion + Accuracy

### Accuracy Points

Sep 17-9:03 AM

## Math 8 Unit 3
## Day 14: Solutions to Equations

Objectives:

I can tell how many solutions an equation has.

Sep 28-2:09 PM

**2**

How many solutions for x do the following equations have?

$3x + 2 = 2x - 10$      $6x + 10 = 6x + 9$

*One solution, because x equals something.*

*Zero solutions, the expressions are not equal on each side.*

Try to create an equation where any number would make the statement true. (infinite number of solutions)

$x + 1 = 1 + x$      $2x = x + x$

$x + 0 = x - 0$      $8x + 4 = 4 + 8x$

$(5x + 2) \cdot 0 = (10x + 2) \cdot 0$      $x \cdot 0 = 0$

Nov 5-1:51 PM

## Equations with infinite solutions

### Examples

$4x + 2 = 4x + 2$

$9x + 1 = 3x + 6x + 1$

$8x + 2 = 8x + 2$

$4x = 4x$

### Non-examples

$5x + 2 = 1$

$5x + 1 = 3x + 4$

$x + 2 = x + 1$

$2x + 3x - 5 = 5x + 1$

$2x - 3 = 2x$

What are characteristics of an equation that has infinite solutions?

— If we combine all like terms, have the same expressions with the same constant & coefficient!

↳ — both sides of the equation simplify to 0.

~ the same #'s on both sides

~ variables are equal

Nov 5-2:05 PM

3

# Vocab

Infinite Solutions: Equations that are true regardless of the value of the variable have infinite solutions.

Example:    x + 3 = x + 3
                   -x          -x
                            3 = 3  Infinite Solutions!

> Hint
> After eliminating the variables, is the statement true? If yes, it has infinite solutions.

Nov 5-2:03 PM

Solve each of the following.

1) 2x + 8 = 2x + 8     infinitely many solutions

2) 4x + 9 = 2x - 2(x + 10)     x = -7.25

3) 2x - 3 = 8x - 3(2x + 1)     infinitely many solutions

4) 5x + 5 = 5x + 5     infinitely many solutions

5) 4x + 3 = 4x - 3
   -4x   3 - -3   no solution

Nov 5-4:28 PM

# 1.3 p. 21B (10-19)

Nov 5-4:37 PM