Lesson # 30

Order of Operations & Algebraic Expressions with Integers

Date

Warmup

1. Find the area of the rectangle with length= 3.5 meters and width = 2 meters using the formula $A = \ell w$

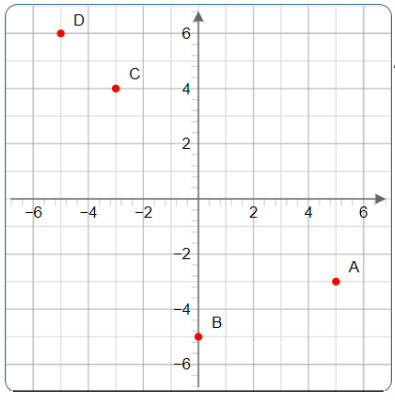
2. Evaluate each expression for x = -5, y = -2, and z = 8

x+z y-z x-z z-x

3. *Solve and Check*

$z + 8.75 = 11$

4. Give the (x,y) value of each point



A:_____

B:_____

C:_____

D:_____

5. Write $\frac{70}{105}$ in simplest form using prime factorization or the GCF

6. Fill in the missing values using the distributive property.

6 (2 + 3) = 6(__) + 6(__)

7. Write the order of operations.

I. Expand Algebraic Expressions using the Distributive Property

Simplify using the distributive property: 5(4) – 3(4) = (__ - __)(4)

Simplify using the distributive property:

5x – 3x

(____ - ____) x

_____ x

Simplify using the distributive property:

7 (x + 3) = 7(x) + 7(3)

Expand using the distributive property:

3 (y - 1)

Expand using the distributive property:

$5 (t - 8)$

Expand using the distributive property:

$4 (s + 6)$

8. Expand using the distributive property:

$9 (s + 4)$

9. Expand using the distributive property:

II. Simplify Algebraic Expressions using the Distributive Property

Simplify using the distributive property:

$7x - 9x$

Simplify using the distributive property:

$6y + 3y$

10. Simplify:

$2s + 5s$

11. Simplify:

$8w - 7w$

Simplifying Expressions :

Use the distributive property to add or subtract like-variables.

$2s + 5s = (2+5)\ s = 7s$

Simplify using the order of operations.

$2^3 - 20$ $\qquad$ $(4 - 9) + 100$

Parentheses

Exponents

Multiplication or Division

Addition or Subtraction

III. Simplifying Expressions with Integers

Simplify:

$-2x + 8x$

Simplify:

$9y - 10y$

Simplify:

$-3z + -6z$

12. Simplify:

$9b - {}^{-}11b$

Simplify:

$3(2.5) - 10^2$

13. Evaluate the expression if c = 16

$2c + -10$

14. Evaluate the Expression:

$-5 + 6(7 + 8)$

IV. Practice

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