

Pre-Algebra

Essential Question: How do we evaluate algebraic expressions with rational numbers?

Do Now: Consider the numerical expression below that has been evaluated. Do you think the expression was evaluated correctly? Explain your reasoning.

$$\frac{2^2}{5}$$

$$\frac{2}{5} \cdot \frac{2}{5} = \frac{4}{25}$$

Evaluating Algebraic Expressions

Use () to

- Raise a negative number or fraction to a power
- Subtract a negative number
- Show multiplication between signed numbers

Evaluate each expression when $a = \frac{2}{3}$, $b = -6$, $c = 0.1$ and $d = -2.5$

1) $\frac{b}{a}$

2) $ab + cd$

3) $b - \frac{d}{c}$

4) a^2c

IT'S YOUR TURN NOW

Evaluate each of the following when $x = 3.5$, $y = -4$, $z = -\frac{1}{2}$.

5) $xy + z$

6) $z^2 + y$

7) $y^2 - z$

8) $\frac{zy}{x + y}$

TODAY'S TAKE AWAY:

When evaluating algebraic expressions, always follow the order of _____.

Make sure to use () when subtracting a negative number or raising negative numbers and _____ to a power.

Let's Partner Up



9) What value will make the equation true?

$$-2.1 - ? = -1\frac{1}{2}$$

A. 3.6

B. 0.6

C. -0.6

D. -3.6

10) **True/False:**

If the algebraic expression $-0.15a$ results in a *negative* number when evaluated, then the value of a must be less than 0.