Pre-Algebra

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

<u>Do Now:</u> Simplify each numerical expression.

A. $-1.5 + 3.5 + 2$

B. $1\frac{1}{2} - 3 + 2\frac{1}{2}$

C. $-\frac{7}{12} + \frac{1}{6} + \frac{5}{12}$

Evaluating Numerical Expressions

P
E
M or D
A or S

1) $\frac{1}{2} - \left(\frac{1}{2}\right)^2$

2) $\left[1\frac{1}{5} + (-1.2)\right](-5)$

3) $-\frac{3}{7} \times 0.1 \div \frac{5}{21}$

4) $\dfrac{-(-4)(-6) + \frac{3}{5}(15-20)}{-\frac{1}{5} \times 3}$

IT'S YOUR TURN NOW

5) $\frac{1}{2}\left(-\frac{1}{2}+\frac{4}{5}\right)$

6) $-6 \div \frac{3}{10} \times 4.5$

7) $\frac{-5\frac{1}{2}\cdot 4}{-\frac{7}{2}+\frac{1}{4}}$

TODAY'S TAKE AWAY:

When evaluating numerical expressions, always follow the order of _____ (PEMDAS).

Without evaluating the expressions, determine which numerical expressions will result in a negative number. Select all that apply.

a) $11.6 - 15.7$

b) $\left(-\frac{2}{5}\right)^2 + 5\frac{1}{4}$

c) $(3.5)(4) \div \left(-\frac{2}{3}\right)$

d) $(0.5)(-3.75) - 20$

HW #

Evalaute each numerical expression. Show all work vertically!

1) $-\frac{4}{5} \cdot 20 \div \left(-\frac{8}{15}\right)$

2) $\frac{(-3)\left(\frac{5}{6}\right)}{-0.75+\frac{2}{3}}$

3) $\left(\frac{1}{3}\right)^2 - \frac{5}{6} \div \frac{5}{2}$

4) $14 \div \left[\frac{1}{2} + (-0.15)\right]$