

3.6 order of operations with rational numbers

Tuesday, September 29, 2015 9:23 AM

3.6 ORDER OF OPERATIONS WITH RATIONAL NUMBERS NOTES

Warm up: Look at the problem at the top of pg 137 and answer the questions.

Student #1: did subtraction
as the first step
(wrong)

Student #2: multiplied $(2)(-3)$
before doing the
exponent.

$$\begin{aligned}
 & (-8) - 2((24 \div (-8))^2) \\
 &= (-8) - 2((-3)^2) \\
 &= (-8) - 2(9) \\
 &= -8 - 18 \\
 &= -26 //
 \end{aligned}$$

What is the key word for order of operations?

BEDMAS B: brackets

DM: division /

AS: addition /

multiplication

subtraction

E: exponents

Examples

$$\begin{aligned}
 & 1) \text{ Evaluate } (-3.2) - 0.9 \div [0.7 - (-1.2)]^2 \\
 &= (-3.2) - 0.9 \div (1.9)^2 \\
 &= (-3.2) - (0.9 \div 3.61) \\
 &= (-3.2) - 0.25 \\
 &= -3.45 //
 \end{aligned}$$

2) Simplify $3(-2 + 6) - 5(4 - 1)$ you TRY

$$3(4) - 5(3) =$$

$$12 - 15 =$$

$$\underline{\underline{-3}}$$

3.6 ORDER OF OPERATIONS WITH RATIONAL NUMBERS NOTES

$$\begin{aligned}
 3) \quad & \frac{4}{5} \left[\frac{3}{8} + \frac{7}{-4} \right] \times 2 & \frac{7}{-4} = \frac{-7}{4} = -\frac{7}{4} & * \text{copy/check} \\
 & & & \text{your work!} * \\
 & = \frac{4}{5} \left[\frac{3}{8} + -\frac{14}{8} \right] \\
 & = \frac{4}{5} \left(-\frac{11}{8} \right) \\
 & = \frac{11}{10} = 1\frac{1}{10}
 \end{aligned}$$

on cart
 \downarrow

Assignment: 3.6 worksheet
 +
 p. 140 #3, 4, 8, 10

CH3 TEST TUES.
 OCT 6