

September 18, 2017
 * Quiz #3 - Wednesday
 • Algebraic Tools
 • Symbol Equations

* Use Order of Operations

$$(12-3^3) - 12 \cdot 5 \quad ? \quad -(100 \div 5^2) - 72 \div (-6)^2$$

$$(12-27) - 12 \cdot 5 \quad -(100 \div 25) - 72 \div 36$$

$$(-15) - 12 \cdot 5 \quad -(4) - 72 \div 36$$

$$-15 - 60 \quad -4 - 2$$

$$-75 < -6$$

Sep 18-9:50 AM

Turn In CoR E 1.1

Sep 18-10:10 AM

FP 2 $\frac{a}{b} \cdot \frac{c}{d} = \frac{a}{b} \cdot \frac{c}{d}$

① $\frac{5}{8} \cdot \frac{5}{5} = \frac{25}{40}$
 Equivalent Fractions

② $\frac{24}{36} = \frac{4 \cdot 6}{4 \cdot 9} = \frac{6}{9} = \frac{2 \cdot 3}{3 \cdot 3} = \frac{2}{3}$
 Equivalent

Sep 18-10:14 AM

Operations on Fractions

① Multiplication
 $\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$ ← simplified

* $a, b, c, d \in \mathbb{Z}$
 $\nexists b \nexists d \neq 0$

① $-\frac{5}{8} \cdot \frac{3}{4} = -\frac{15}{32}$

② $\frac{3}{5} \cdot \frac{5}{3} = \frac{75}{45}$
 equivalent

$\frac{1}{1} \cdot \frac{5}{3} = \frac{5}{3}$

Sep 18-10:23 AM

② Division

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c}$$

* Keep Change Flip = $\frac{ad}{bc}$

* Alternate Form

Complex Fraction $\left\{ \frac{\frac{a}{b} \cdot K}{\frac{c}{d} \cdot F} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc} \right.$

$$\frac{8}{13} \div \frac{1}{2} = \frac{8}{13} \cdot \frac{2}{1} = \frac{16}{13}$$

Sep 18-10:38 AM

③ Addition w/ Like Denominators

$$\frac{a}{b} \pm \frac{c}{b} = \frac{a \pm c}{b}$$

$$\frac{4}{x} - \frac{6}{x} = \frac{4-6}{x} = \frac{-2}{x}$$

Recall FACT $-\frac{a}{b} = \frac{-a}{b}$

Sep 18-10:40 AM