

February 2, 2016
 * Quiz # 3 - Tomorrow
 * 1. 2 order of Operations
 * Prior

Feb 2-9:52 AM

$$\frac{24}{48} = \frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot \cancel{3}}{\cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot \cancel{3}} = \frac{1}{2}$$
 GCD: $2 \cdot 2 \cdot 2 \cdot 3 = 24$
 I P 2
 Greatest Common Division
 GCD or Denominator

Feb 2-10:06 AM

$$\frac{6}{14} = \frac{\cancel{2} \cdot 3}{\cancel{2} \cdot 7} = \frac{3}{7}$$
 GCD: 2

$$\frac{3}{7} = \frac{\cancel{1} \cdot 3}{\cancel{1} \cdot 7}$$
 GCD: 1 ← Relatively Prime
 R.P.

Feb 2-10:13 AM

Operations on Fractions

① Multiplication

$$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$$
 R.P.

$$\frac{5}{7} \cdot \frac{1}{2} = \frac{5}{14}$$

$$\frac{2}{5} \cdot \frac{1}{3} = \frac{2}{15}$$
 GCD: 1

$$\frac{2}{5} \cdot \frac{1}{2 \cdot 3} = \frac{\cancel{2} \cdot 1}{5 \cdot \cancel{2} \cdot 3} = \frac{1}{15}$$
 GCD: 1 or R.P.

$$\frac{3x}{8} \cdot \frac{4}{5x^2} = \frac{\cancel{4} \cdot x}{40x^2}$$
 GCD: $4x$

$$= \frac{3}{10x}$$
 ← R.P. GCD: 1

Feb 2-10:17 AM

② Division - SMP

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc}$$
 Keep Change to Multiplication
 * Always do K.C.F. first, then multiply

$$\frac{5}{7} \div \frac{1}{2} = \frac{5}{7} \cdot \frac{2}{1} = \frac{10}{7}$$
 K C F

$$\frac{8}{y^3} \div \frac{y^2}{2} = \frac{8}{y^3} \cdot \frac{2}{y^2} = \frac{16}{y^5}$$

Feb 2-10:32 AM

K $\frac{3x}{5}$
 C $\frac{8x}{11}$ ← main Fraction Bar
 F $\frac{3x}{5} \div \frac{8x}{11} = \frac{3x}{5} \cdot \frac{11}{8x} = \frac{3 \cdot 11 \cdot \cancel{x}}{40 \cdot \cancel{x}} = \frac{33}{40}$

Feb 2-10:38 AM

$$\begin{aligned}
 & \frac{16t^2}{5x} \cdot \frac{8t^4}{3} \\
 & \quad \text{K} \quad \text{c} \quad \text{Q} \\
 & \frac{16t^2}{5x} \cdot \frac{3}{8t^4} = \frac{16t^2 \cdot 3}{5x \cdot 8t^4} \\
 & = \frac{\boxed{16} t^2 \cdot 3}{\boxed{8} t^4 \cdot 5x} \\
 & = \frac{2 \cdot 3}{t^2 \cdot 5x} \\
 & = \boxed{\frac{6}{5t^2x}} \text{ R.P.}
 \end{aligned}$$

Feb 2-10:42 AM