

September 18, 2015
 * SSC #2 Due Monday
 * Only Cumulative Page!

Sep 18-9:04 AM

Fractions

① I P I
 $\frac{a}{b} \cdot \frac{c}{c} = \frac{ac}{bc} = \frac{a}{b} \cdot 1 = \frac{a}{b}$

② Multiplication
 $\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$

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③ Division

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

Simplify here

Keep Change to Multiplication → Flip

$\frac{3}{11} \div \frac{2}{3} = \frac{3}{11} \cdot \frac{3}{2} = \frac{9}{22}$

K C F

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$\frac{5}{7} \div \frac{25}{4}$

$\frac{5}{7} \cdot \frac{4}{25} = \frac{20}{175}$

$\frac{1}{7} \cdot \frac{4}{5} = \frac{4}{35}$

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$\frac{4}{11}$ Is this simplified?

$\frac{2 \cdot 2 \cdot 1}{1 \cdot 11}$ ← Prime

* When "1" is the only common factor, then we say the fraction is "Relatively Prime".

$\frac{3}{4}$

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Complex Fractions

$\frac{8}{13}$ K
 $\frac{1}{3}$ F

main fraction bar

$\frac{8}{13} \cdot \frac{3}{1} = \frac{24}{13}$

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④ Addition w/
Like Denominators

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

Common or Like

$$\frac{5}{7} - \frac{1}{7} = \frac{5-1}{7}$$

$$= \frac{4}{7}$$

$$\frac{4}{5x^2} + \frac{3}{5x^2} = \frac{4+3}{5x^2}$$

$$= \frac{7}{5x^2}$$

$$\frac{4}{5x^2} + \frac{6}{5x^2} = \frac{4+6}{5x^2} = \frac{10}{5x^2} = \frac{2}{x^2}$$

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⑤ Addition w/
Unlike Denominators

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

Unlike! like or Common

$$4 \neq 5 \Rightarrow 4 \cdot 5 = 20$$

$$\frac{20}{4} = 5$$

$$\frac{20}{5} = 4$$

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LCD = 15 \cdot 2 = 30

$$\frac{4}{15} - \frac{1}{2} = \frac{4 \cdot 2 - 1 \cdot 15}{15 \cdot 2} = \frac{8 - 15}{30}$$

$$= \frac{-7}{30}$$

a = 4
b = 15
c = 1
d = 2

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