February 3, 2016

#4) $3x^2 - 2y^2$; $x = -3$ $y = -2$

$3(-3)^2 - 2(-2)^2$

$3(-3)(-3) - 2(-2)(-2)$

$3(9) - 2(4)$

$27 - 8$

$\boxed{19}$

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Operations on Fractions Continued

③ Addition (Subtraction) with Like Denominators

$\frac{a}{b} \pm \frac{c}{b} = \boxed{\frac{a \pm c}{b}}$ always Reduce

Common Denominators or Like

$\frac{5}{12} + \frac{7}{12} = \frac{5+7}{12} = \frac{12}{12} = 1$

$-\frac{23}{3} - \frac{5}{3} = \frac{-23-5}{3}$

$= \frac{-23+(-5)}{3}$

$-\frac{a}{b} = \frac{-a}{b} = \frac{a}{-b}$ $= \frac{-28}{3}$ $= \boxed{-\frac{28}{3}}$

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④ Addition (Subtraction) with Unlike Denominators

$\frac{a}{b} \pm \frac{c}{d} = \boxed{\frac{ad \pm cb}{bd}}$ Always Reduce

Least Common Denominator (LCD)

① $\frac{a}{b} \cdot \boxed{\frac{d}{d}} = \frac{ad}{bd}$ "one"

② $\frac{c}{d} \cdot \boxed{\frac{b}{b}} = \frac{cb}{bd}$

$\frac{ad}{bd} \pm \frac{cb}{bd}$

$\frac{ad \pm cb}{bd}$

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$\frac{11}{11} \cdot \frac{5}{8} + \frac{2}{11} \cdot \frac{8}{8} = \frac{5(11)+2(8)}{8 \cdot 11 = 88}$

LCD: 88 $= \frac{55+16}{88}$

$\frac{88}{8} = 11$ $= \frac{71}{88}$

$\frac{88}{11} = 8$

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LCD: 12

$\frac{7}{12} + \frac{1}{3} = \frac{7+4}{12} = \frac{11}{12}$

$\boxed{\frac{1}{3}} \cdot \boxed{\frac{4}{4}} = \boxed{\frac{4}{12}}$

Equivalent

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LCD: 15

$\frac{4}{15} - \frac{1}{5}$

$\frac{4-3}{15} = \frac{1}{15}$

$\frac{20-15}{75} = \frac{5}{75} = \frac{1}{15}$

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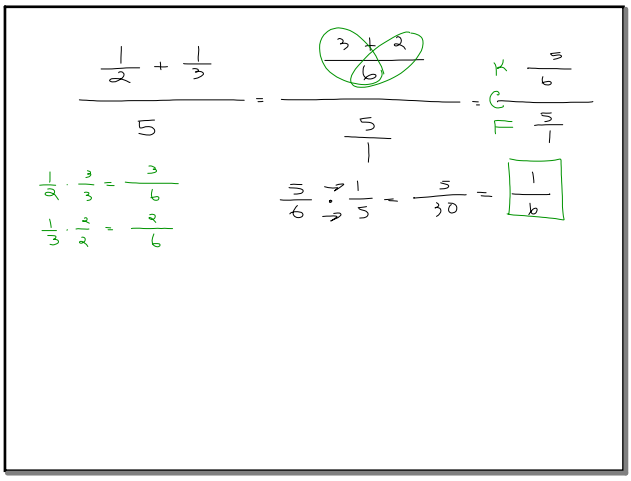

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