Warm Up

Let's Factor...

1. $6r^3+24r$ $6r(r^2+4)$

2. x^2+x-30 AC: 1·-30, -30; B: 1; 6·-5 $(x+6)(x-5)$

3. $12x^2-20x-8$ $4(3x^2-5x-2)$ AC: -6, -5; 1·-6 $4(3x^2+1x-6x-2)$ $4(x(3x+1)-2(3x+1))$ $4(3x+1)(x-2)$

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Day 2 - Multiplying and Dividing Rational Expressions 2-26-15

Steps for Multiplying & Dividing Rationals:

1) Flip the 2nd fraction. (Only if you're dividing!!!)
2) Factor everything (numerators and denominators).
2) Cancel matching factors from top and bottom.
3) Write (and multiply) what's left.

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5, 10, 14

$\frac{(b+5)(b-10)}{-1(-10+b)} \cdot \frac{4}{(b-4)(b+5)} = \frac{4}{-1(b-4)} = \frac{-4}{b-4}$

Feb 27-9:49 AM

Ex 1) $\frac{x-2}{2x-3} \cdot \frac{4x-6}{\sqrt{x^2}-\sqrt{4}}$

$\frac{x-2}{2x-3} \cdot \frac{2(2x-3)}{(x+2)(x-2)} = \frac{2}{x+2}$

Ex 2) $\frac{x^2-16}{x^2-4x+4} \cdot \frac{x^2-2x}{x^3+4x^2}$

$\frac{4}{2\cdot 2}$ $\frac{(x-4)(x+4)}{(x-2)(x-2)} \cdot \frac{x(x-2)}{x^2(x+4)} = \frac{x-4}{x(x-2)}$

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Ex 3) $\frac{3x^2-7x+4}{x+7} \div \frac{x^2-10x+9}{x+7}$

Ex 4) $\frac{x+3}{x^2-2x+1} \div \frac{5x+15}{20x^2-20}$

$\frac{x+3}{(x-1)(x-1)} \cdot \frac{20(x-1)(x+1)}{5(x+3)} = \frac{4(x+1)}{x-1}$

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Conclusion

1. When simplifying rational expressions, what is the very first thing you do? FACTOR
2. What must you do to the 2nd fraction when dividing? FLIP
3. Do you see the importance of knowing how to factor now? yes
4. Questions???

Feb 22-9:09 PM

Assignment:

Day 2 - Multiplying & Dividing Rational Expressions Wkst

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