Advanced Algebra

Unit 5: Polynomials

Assignment #13

Learning Target: I can divide fractions

I know that to divide fractions I follow the following steps

a) Reciprocal the second
b) Multiply
c) Remember: Before I can do any canceling, I need to factor the problems completely. You must FACTOR before you can cancel!!

Example from Middle school: $\frac{6}{8} \div \frac{3}{20}$

Reciprocal the second and Multiple so you now have $\frac{6}{8} * \frac{20}{3}$ You can now REDUCE vertically or on a diagonal So you get $\frac{2}{2} * \frac{5}{1}$ Now that I am done Reducing, I will multiply straight across the top and straight across the bottom. This gives us an answer of $\frac{10}{2}$ We can now reduce this to just 5.

We have already multiplied fractions in this class. We did that on Assignment #5. After you FACTOR these problems, you the Reciprocal the second and Multiply. It turns into a previous assignment. There

1) $\frac{x^2+11x+28}{(x-2)} \div \frac{x^2+5x-14}{4x-8}$	2) $\frac{x^2+8x+12}{x^2-6x} \div \frac{x^2-3x-10}{2x-12}$
3) $\frac{x^2+1x-20}{x^2+2x-8} \div \frac{x^2+17x+30}{x^2-6x-40}$	4) $\frac{x^2+8x-20}{x^2-x-12} \div \frac{x^2+4x-60}{x^2+3x}$

is only the added step of Reciprocal the second and Multiply!!!!!

5) $\dfrac{x^2-4x-12}{3x^2-x} \div \dfrac{(x-6)}{x}$	6) $\dfrac{x^2-6x-40}{8x^2-4x} \div \dfrac{x^2-8x-20}{4x}$	6)) $\dfrac{x^2+7x-30}{9x^2-3x} \div \dfrac{x^2-9}{3x}$

Review: Write the equation of the following graph. Remember if a graph "Touches" the x axis that is **called a double root.** Any double root is written twice. So you would write (x-a) (x-a) if it touched at a.
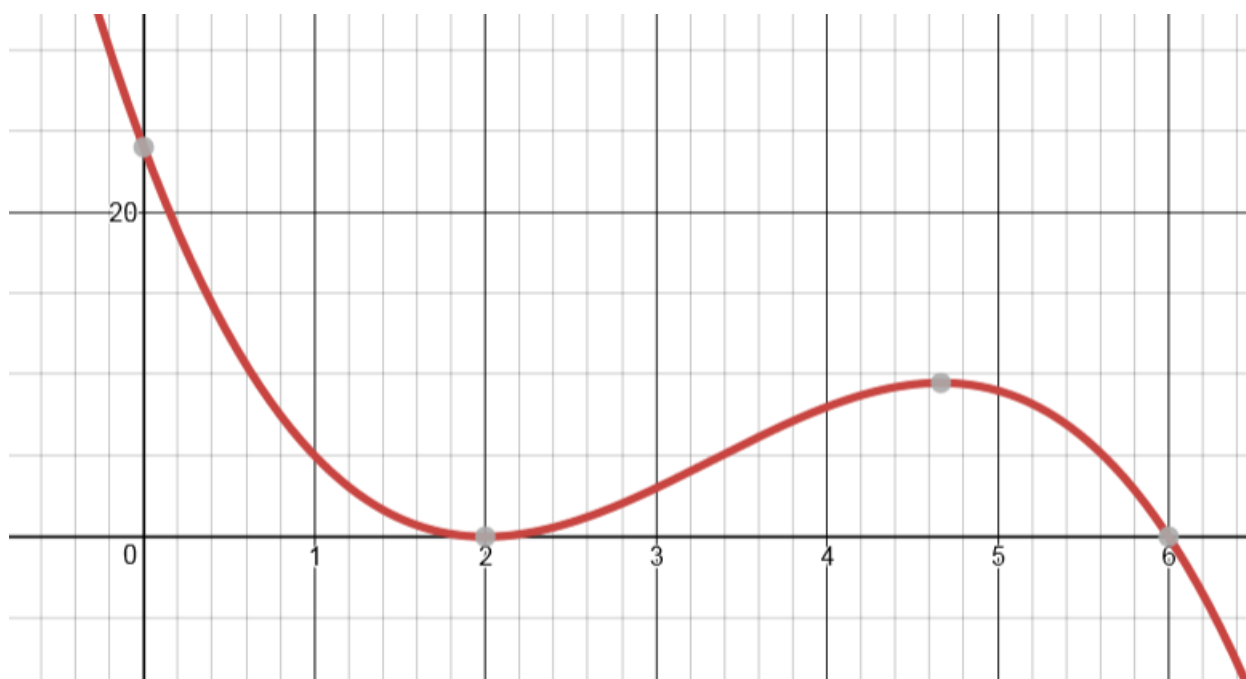
Equation of Graph:	#1	$\dfrac{5}{(m+3)}=\dfrac{-5}{(m-1)}$	#2	$\dfrac{3}{(a-2)}=\dfrac{-5}{(a-10)}$	#3	$\dfrac{4}{(a-8)}=\dfrac{6}{(a+5)}$
	#4	$\dfrac{6}{(x+4)}=\dfrac{2}{(x+2)}$	#5	$\dfrac{4}{(x+1)}=\dfrac{8}{(x+5)}$	#6	$\dfrac{3}{(x+1)}=\dfrac{4}{(x+\frac{11}{3})}$