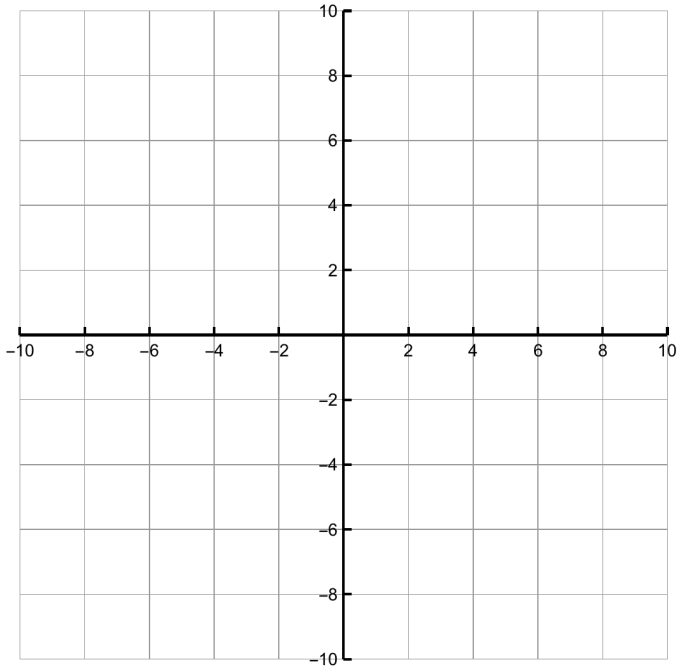
Math 141 Worksheet 6 Name_____

11/15/17 [/15]

Show all your work for full credit. Unsupported answers = 0 points. **Do not simply copy what is on your calculator. Justify all aspects of your graph. Be sure to label the important features on the graph.**

Make an accurate sketch of each rational function appropriately labeling all features (intercepts, asymptotes, holes, intercepts, etc.)

1) $f(x) = \frac{2x^2+x-10}{x^2+3x-10}$



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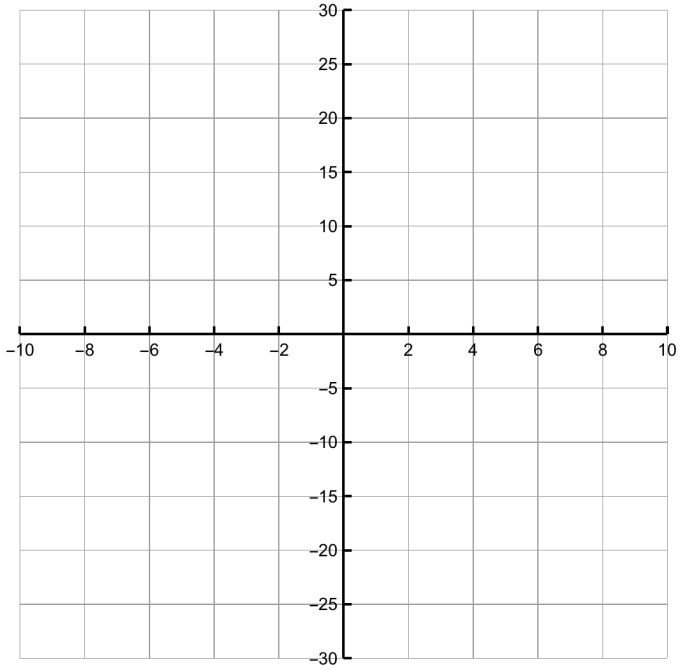
2) $g(x) = \frac{x^2-5x-6}{x+3}$



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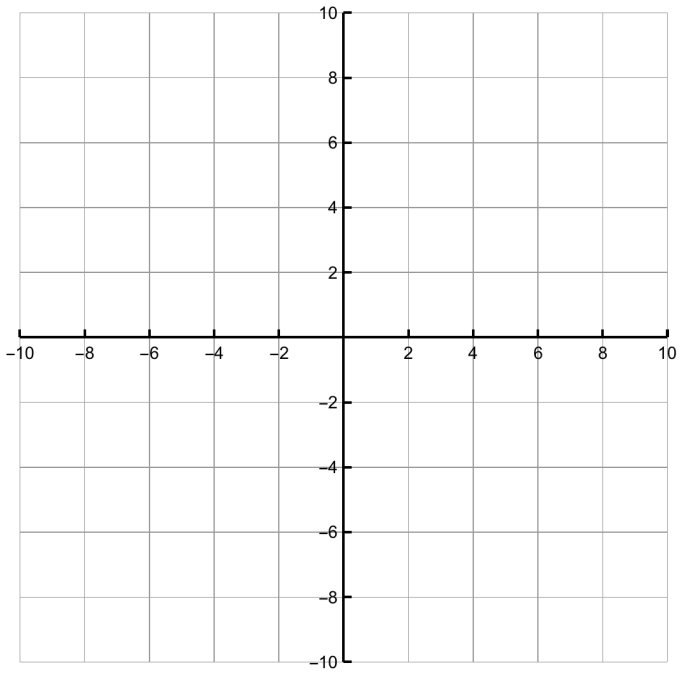
3) $h(x) = \frac{2(x-4)^2(x+3)}{(x-3)^2(x+4)}$



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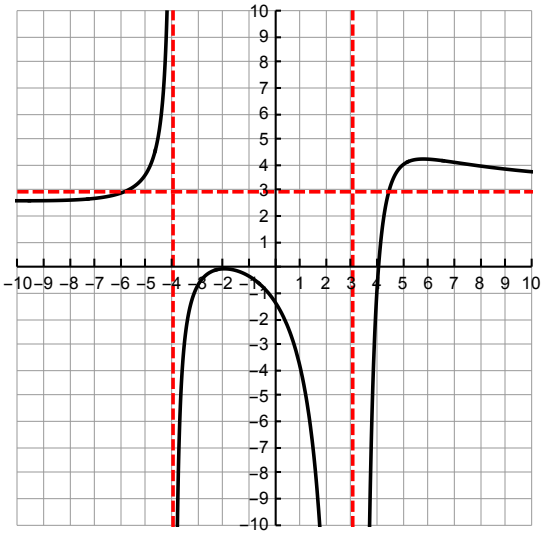
4) Find a possible function whose graph is given. Explain your reasoning.



[/3]

Extra Credit: Algebraically (not by graphing) find the coordinates where the graph of $y = \frac{x^3-2x^2-6x-5}{x^2-3x-4}$ intersects its slant asymptote.

[/1]
