

QUIZ 7 - MATH 111

Thursday, October 26

YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [6 points] Consider the rational function $f(x) = \frac{18(x-1)}{(x+2)^2(x-3)}$. Please, answer the following by hand.

Dom(f) =

Vertical Asymptote(s):

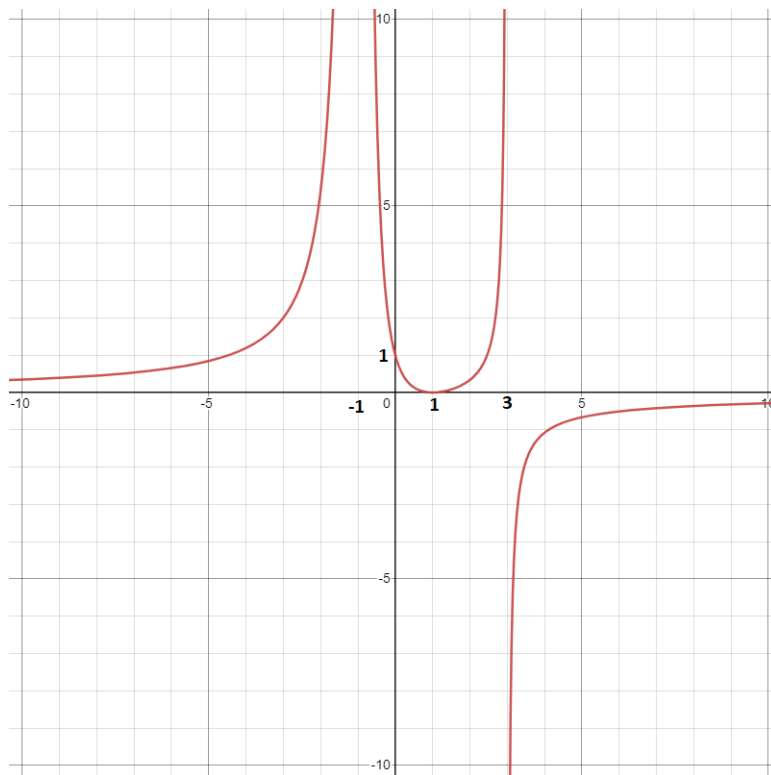
Horizontal Asymptote:

y -intercept:

x -intercept(s):

Sketch the graph, carefully displaying all features:

2. [6 points] Consider the graph of $y = f(x)$. Please, answer the following by hand.



Dom(f) =

Vertical Asymptote(s):

Horizontal Asymptote:

y -intercept:

x -intercept(s):

Find a possible formula for $y = f(x)$, showing all steps: