

Graphing HW #2.6

Name _____

Show all work to receive credit.

$$f(x) = \frac{(x-3)^2}{6(x-6)(x-1)}$$

- Determine the equation of the vertical asymptotes of $f(x)$ and their multiplicity.
- State the domain: from part (a) we see that
- Calculate the y-intercept. State it as a coordinate pair.
- Determine the **equation** of the horizontal asymptotes, or state that there are not any. Show work that explains how you found it/them.

e) Calculate the x-intercepts.

f) Use (a) and (e) to fill out the following chart.

X-intercepts/Zeros	Multiplicity	Meaning
Vertical Asymptotes	Multiplicity	Meaning

f) Use the collected information to sketch a graph. Find additional points on the graph as needed. $f(x) = \frac{-(x-3)^2}{6(x-6)(x-1)}$

