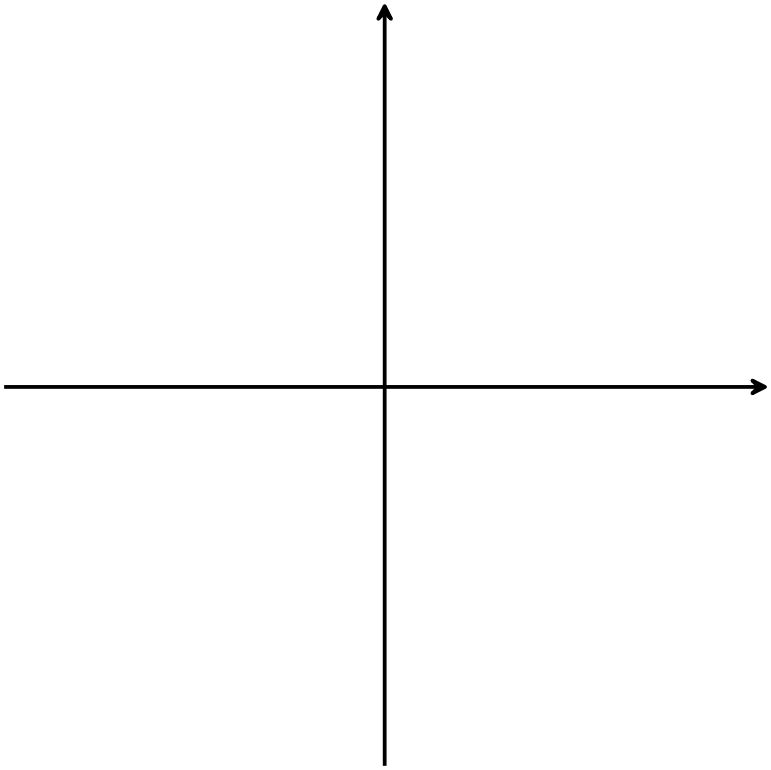
King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
(Semester 171) Math 101-50 Quiz # 5

Name: _____ I.D. # _____ Sr. # ___

Consider the function $f(x)=\dfrac{x^2}{x-1}$,

1. Find the x- and y- intercepts of the function.
2. Find all asymptotes (horizontal, vertical, or slant).
3. Find the relative extrema, if any exist, and where f is increasing or decreasing.
4. Find inflection points, if any exist, and where f is concave up or down.
5. Sketch the graph of $f(x)$ clearly indicating all important points and concavity.



King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
(Semester 171) Math 101-48 Quiz # 5

Name: _____ I.D. # _____ Sr. # ___

Consider the function $f(x)=\dfrac{3x-2x^2}{x-2}$,

1. Find the x- and y- intercepts of the function.
2. Find all asymptotes (horizontal, vertical, or slant).
3. Find the relative extrema, if any exist, and where f is increasing or decreasing.
4. Find inflection points, if any exist, and where f is concave up or down.
5. Sketch the graph of $f(x)$ clearly indicating all important points and concavity.