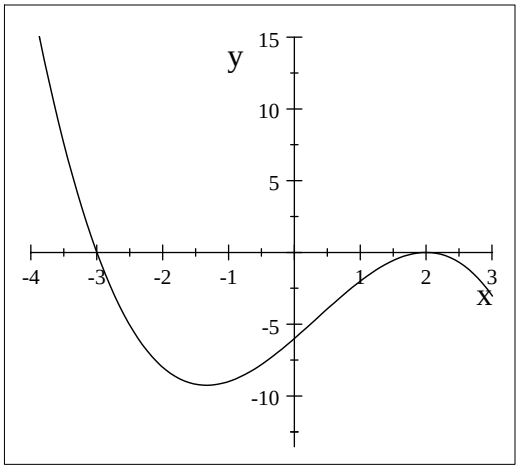
Math 131 - Spring, 2008 **Quiz 1(b)** **Name**: _____

1. (3pts) Give the domain of $g(x) = \sqrt{2x-3}$. Specify the domain in **an interval notation**.

2. (3pts) The graph of $f(x)$ is given below. Find the following.



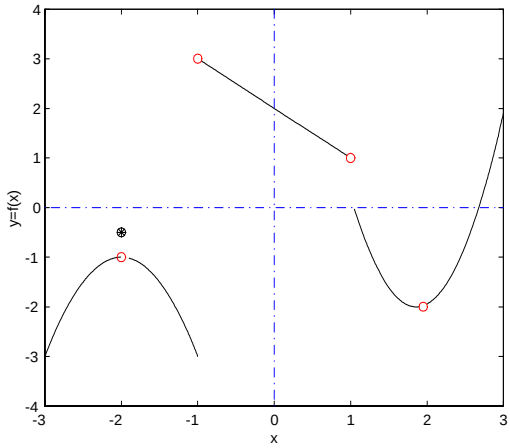
1. State the interval(s) on which $f(x) > 0$.

2. Give the domain (interval notation) of $g(x) = \dfrac{1}{f(x)}$.

3. Extra 2 points:

Give the domain (in interval notation)of $h(x) = \sqrt{f(x)}$.

3. (3pts) Based on the graph of $f(x)$ given below find the limits.



a. $\lim_{x\to 1^-} f(x) =$
b. $\lim_{x\to 1^+} f(x) =$
c. $\lim_{x\to 1} f(x) =$
d. $\lim_{x\to -2} f(x) =$
e. $\lim_{x\to 2} f(x) =$

4. (3pts) (i) Complete the following table by a calculator with at least 8 decimal digits:

x	$\dfrac{x^2-4}{x-1}$	$\dfrac{x^2-4}{x+2}$
-1.9999		
-1.99999		
-1.999999		

(ii) Based on the results obtained in the table, find numerically the limits

$$\lim_{x\to -2^+} \frac{x^2-4}{x-1} = \qquad \lim_{x\to -2^+} \frac{x^2-4}{x+2} =$$