

**Math 101-181-Sec.19 Quiz #1****Name:****ID:****SR:**

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**Question1:** Use the graph of  $f(x)$  below to answer the questions a-k

a.  $\lim_{x \rightarrow -2} f(x)$

b.  $\lim_{x \rightarrow 2^+} f(x)$

c.  $\lim_{x \rightarrow 2^-} f(x)$

d.  $\lim_{x \rightarrow 2} f(x)$

e.  $\lim_{x \rightarrow -3^+} f(x)$

f.  $\lim_{x \rightarrow -3^-} f(x)$

g.  $\lim_{x \rightarrow -3} f(x)$

h.  $\lim_{x \rightarrow 0^+} f(x)$

i.  $\lim_{x \rightarrow 0^-} f(x)$

j.  $\lim_{x \rightarrow 0} f(x)$

k. Find all vertical asymptotes

**Question2:** Find, if exists,  $\lim_{x \rightarrow 3} \frac{\sqrt{x^2-5}-2}{x-3}$