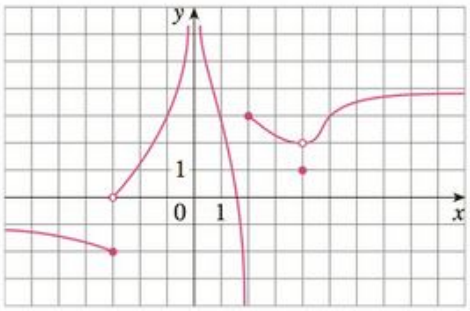
Name: _____ **Quiz 1-A**

Math 151-02 Calculus I – Crawford **12 September 2017**

Books, notes (in any form), and calculators are not allowed. *Show all your work.* Good Luck!



1. (5 pts) Given the graph of $f(x)$ above, state the value of each quantity below, if it exists. Clearly indicate $+\infty$ or $-\infty$ in the case of an infinite limit. If the quantity does not exist, state DNE.

(a). $\lim_{x \to 2^+} f(x)$

(b). $f(-3)$

(c). $\lim_{x \to 4} f(x)$

(d). $\lim_{x \to 0} f(x)$

2. (5 pts) Evaluate the following limit, if it exists. Clearly indicate $+\infty$ or $-\infty$ in the case of an infinite limit. If the limit does not exist, clearly explain the reason why.

$$\lim_{x \to -3} \frac{3x^2 + 9x}{x^2 - 9}$$

3. (5 pts) Evaluate the following limit, if it exists. Clearly indicate $+\infty$ or $-\infty$ in the case of an infinite limit. If the limit does not exist, clearly explain the reason why.

$$\lim_{h \to 0} \frac{\sqrt{4+h} - 2}{h}$$