Math 16A (Summer 2010)
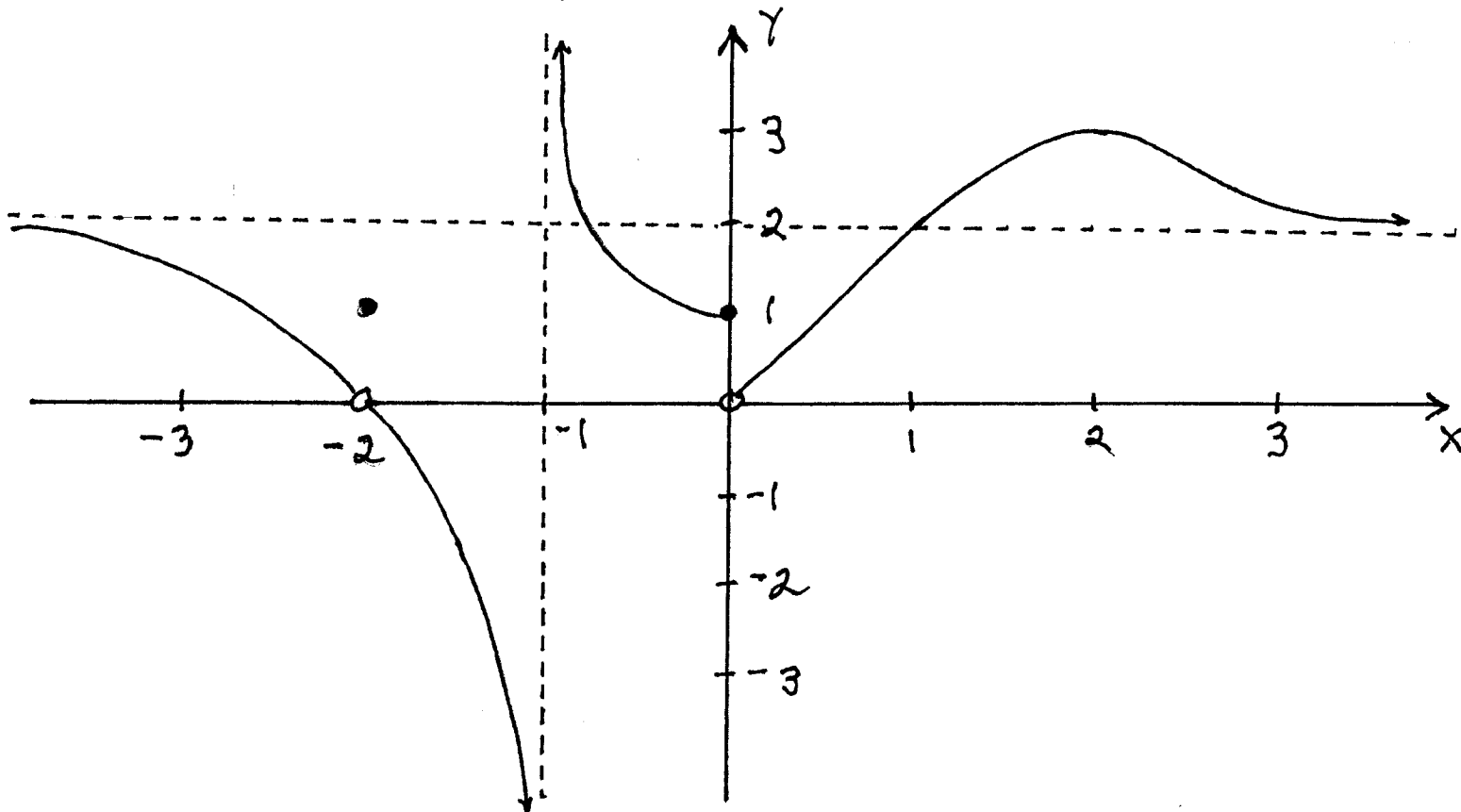Kouba
Quiz 2

PRINT Name : _____

Exam ID # : _____

1.) (2 pts. each) Use the given graph to determine the following limits

a.) $\lim_{x \to 1} f(x)$

b.) $\lim_{x \to -2} f(x)$

c.) $\lim_{x \to 0^+} f(x)$

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

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

f.) $\lim_{x \to -1^+} f(x)$

g.) $\lim_{x \to -1^-} f(x)$

h.) $\lim_{x \to 2} f(x)$

i.) $\lim_{x \to \infty} f(x)$

j.) $\lim_{x \to -\infty} f(x)$

2.) (5 pts. each) Determine the following limits.

a.) $\lim\limits_{x \to 2} \dfrac{x^2 + x - 6}{x^2 - 4}$

b.) $\lim\limits_{x \to 3} \dfrac{\frac{1}{x} - \frac{1}{3}}{x - 3}$

c.) $\lim\limits_{x \to -1} \dfrac{\sqrt{x + 5} - 2}{x + 1}$

3.) Consider the function $y = \dfrac{2x - 2}{x + 1}$.

a.) (4 pts.) Find the x- and y-intercepts for the function.

b.) (4 pts.) Use limits to find equations for all vertical asymptotes.

c.) (4 pts.) Use limits to find equations for all horizontal asymptotes.

d.) (3 pts.) Use results from a., b., and c. to sketch the graph of the function. Label your graph appropriately.