Name: _____ **Quiz 1**

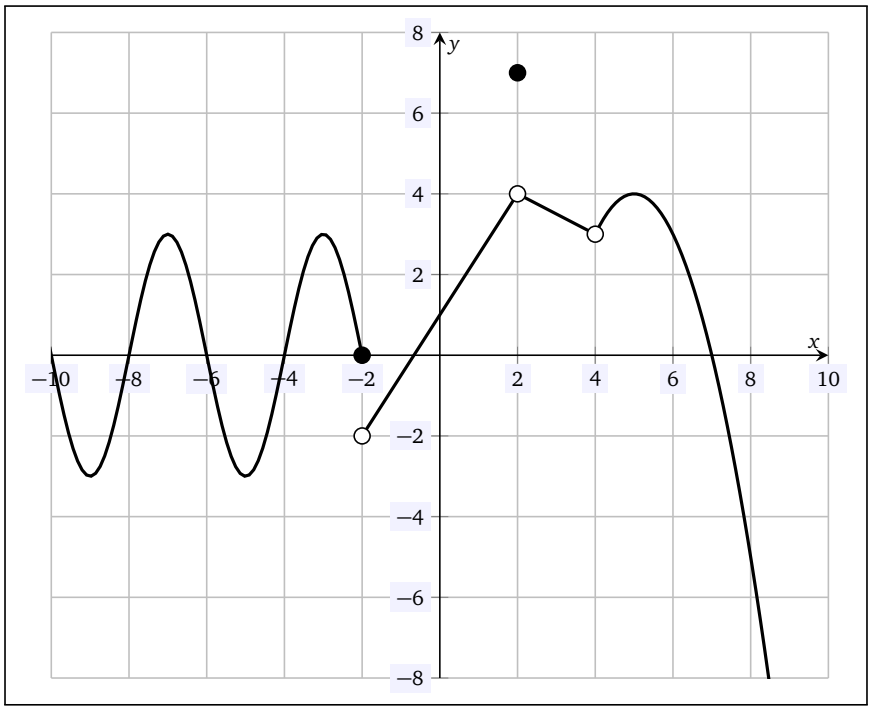
MAT 295 **Fall 2016**

Problem 1: $\lim_{x \to 1} \dfrac{x^2 + x - 2}{x - 1}$

Problem 2: $\lim_{x \to 0} \dfrac{\sin 2x}{3x}$

Problem 3: $\lim_{x \to 0} x \cot 2x$

Problem 4: A function $f(x)$ is plotted below. Use the plot to find the following values (if the value is not defined or does not exist, write DNE):



(a) $f(0)$

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

(c) $\lim_{x\to -2^+} f(x)$

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

(e) $f(-2)$

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

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

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

(i) $f(2)$

(j) $\lim_{x\to 4^-} f(x)$

(k) $\lim_{x\to 4^+} f(x)$

(l) $\lim_{x\to 4} f(x)$

(m) $f(4)$