No calculators are allowed on this quiz. Please read each question carefully, follow directions and clearly mark your solutions. **Show your work for full credit.**

1. (4 points) For the function f(x) graphed below, find the following (justify your answer if the limit does not exist)



(b)
$$\lim_{x \to 1} f(x)$$
 (d) $\lim_{x \to 0} f(x)$

2. (6 points) Find the limits:

(a)
$$\lim_{x \to -2} \frac{x^2 - x - 6}{x^2 + x - 2}$$

(b)
$$\lim_{x \to \infty} \frac{3x^2 + 7x - 2}{-x^2 + 3}$$

(c) $\lim_{x \to 0^+} \frac{1}{x}$

(d)
$$\lim_{x \to 1^-} \frac{x - \sqrt{x}}{x - 1}$$