1. Use the graph of f at right to evaluate the following:

    a. $\lim\limits_{x \to -1^+} f(x)$ 4   b. $\lim\limits_{x \to -1^-} f(x)$ 4   c. $\lim\limits_{x \to -1} f(x)$ 4

    d. $f(2)$ -1 e. $\lim\limits_{x \to 2} f(x)$ DNE   f. $\lim\limits_{x \to 2^-} f(x)$ -1

   g. $\lim\limits_{x \to 2^+} f(x)$ 5   h. $\lim\limits_{x \to -4} f(x)$ DNE   i. $f(4)$ undefined
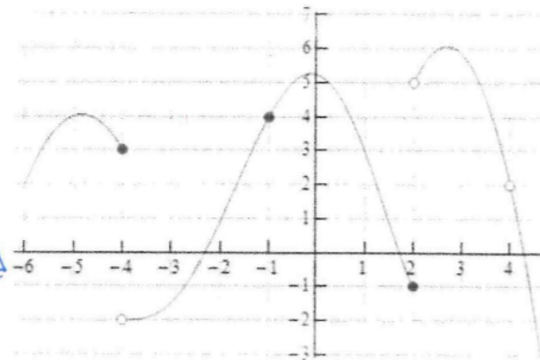
2. Sketch a graph of a function that satisfies these conditions: $\lim\limits_{x \to 0^-} f(x) = -1$, $\lim\limits_{x \to 0^+} f(x) = 1$, $\lim\limits_{x \to 2^-} f(x) = 0$, $\lim\limits_{x \to 2^+} f(x) = 1$, $f(0)$ is undefined and $f(2) = 1$.
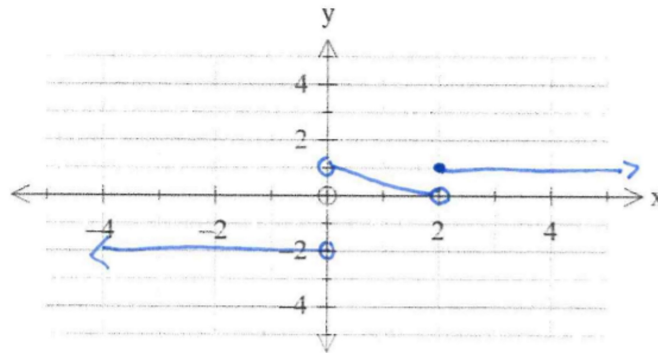
3. Use the graph of f below to evaluate the following:

    a. $\lim\limits_{x \to -2} f(x)$ DNE   b. $\lim\limits_{x \to 1^-} f(x) = 3$ c. $\lim\limits_{x \to 1^+} f(x) = 3$

    d. $\lim\limits_{x \to 1} f(x) = 3$ e. $f(1) = 4$ f. $\lim\limits_{x \to 3} f(x)$ DNE

    g. $f(3) = -2$