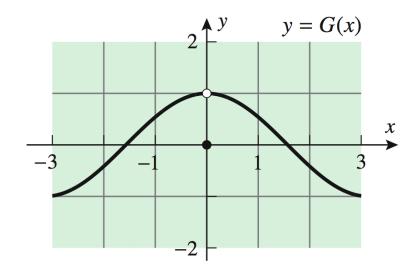
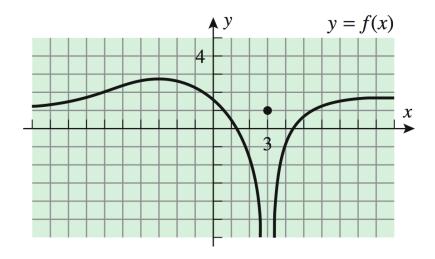
Limits Worksheet

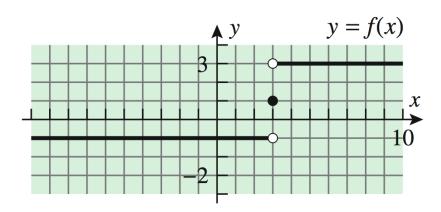
- 1. For the function G graphed in the accompanying figure, find
 - (a) $\lim_{x \to 0^-} G(x)$
- (b) $\lim_{x \to 0^+} G(x)$
- (c) $\lim_{x\to 0} G(x)$
- (b) G(0)



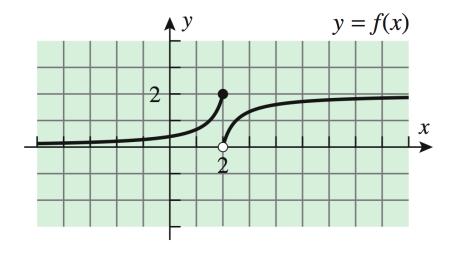
- 2. For the function f graphed in the accompanying figure, find
 - (a) $\lim_{x \to 3^{-}} f(x)$
- $(b) \quad \lim_{x \to 3^+} f(x)$
- (c) $\lim_{x \to 3} f(x)$
- (b) f(3)



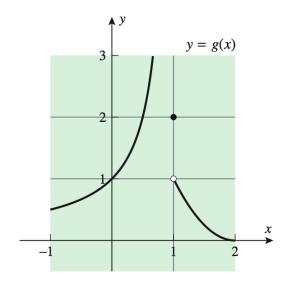
- **3.** For the function f graphed in the accompanying figure, find
 - $\lim_{x \to 3^{-}} f(x)$
- (b) $\lim_{x \to 3^+} f(x)$
- (c) $\lim_{x\to 3} f(x)$
- (b) f(3)



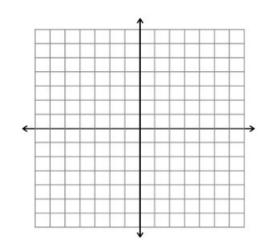
- **4.** For the function f graphed in the accompanying figure, find
 - (a) $\lim_{x \to -1^{-}} f(x)$ (b) $\lim_{x \to -1^{+}} f(x)$ (c) $\lim_{x \to -1} f(x)$
- (c) $\lim_{x \to -1^{-}} f(x)$ (d) $\lim_{x \to -1^{+}} f(x)$ (e) $\lim_{x \to -1} f(x)$



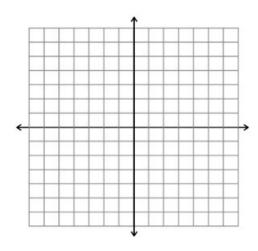
- 5. For the function g graphed in the accompanying figure, find
 - (a) $\lim_{x \to 1^-} g(x)$
- (b) $\lim_{x \to 1^+} g(x)$
- (c) $\lim_{x \to 1} g(x)$
- (b) g(1)



- ${f 6.}$ On the axes provided below, sketch a possible graph for a function f with the specified properties.
 - i. the domain is [-1,1]
 - ii. f(-1) = f(0) = f(1) = 0
 - iii. $\lim_{x \to -1^+} f(x) = \lim_{x \to 0} f(x) = \lim_{x \to 1^-} f(x) = 1$



- 7. On the axes provided below, sketch a possible graph for a function f with the specified properties.
 - i. the domain is $[-\infty,1]$
 - ii. f(-2) = f(1) = 1
 - iii. $\lim_{x \to -2} f(x) = +\infty$



- **8.** On the axes provided below, sketch a possible graph for a function f with the specified properties.
 - i. the domain is [-2,1]
 - ii. f(-2) = f(0) = f(1) = 0
 - iii. $\lim_{x \to -2^+} f(x) = 2$, $\lim_{x \to 0} f(x) = 0$, $\lim_{x \to 1^-} f(x) = 1$

