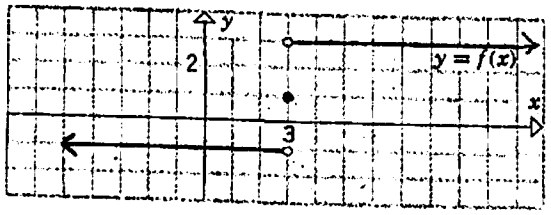
1. For the function f graphed below, find

(a) $\lim_{x \to 3^-} f(x)$ (b) $\lim_{x \to 3^+} f(x)$

(c) $\lim_{x \to 3} f(x)$ (d) $f(3)$

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

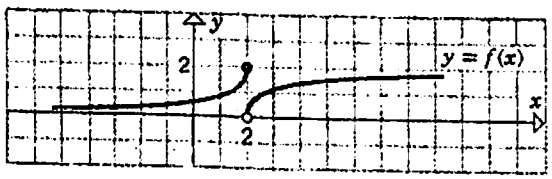


2. For the function f graphed below, find

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

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

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

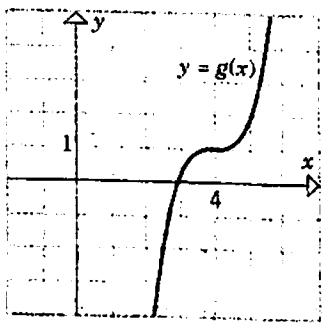


3. For the function g graphed below, find

(a) $\lim_{x \to 4^-} g(x)$ (b) $\lim_{x \to 4^+} g(x)$

(c) $\lim_{x \to 4} g(x)$ (d) $g(4)$

(e) $\lim_{x \to -\infty} g(x)$ (f) $\lim_{x \to +\infty} g(x)$.

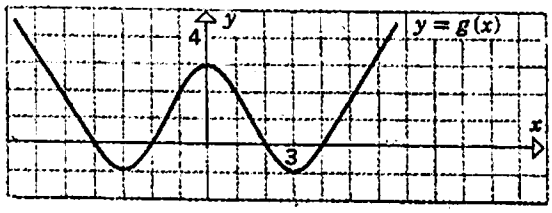


4. For the function g in the following graph, find

(a) $\lim_{x \to 0^-} g(x)$ (b) $\lim_{x \to 0^+} g(x)$

(c) $\lim_{x \to 0} g(x)$ (d) $g(0)$

(e) $\lim_{x \to -\infty} g(x)$ (f) $\lim_{x \to +\infty} g(x)$.

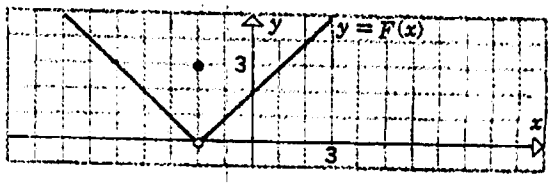


5. For the function F graphed below, find

(a) $\lim_{x \to -2^-} F(x)$ (b) $\lim_{x \to -2^+} F(x)$

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

(e) $\lim_{x \to -\infty} F(x)$ (f) $\lim_{x \to +\infty} F(x)$.

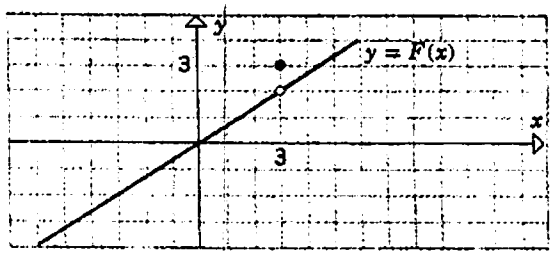


6. For the function F graphed below, find

(a) $\lim_{x \to 3^-} F(x)$ (b) $\lim_{x \to 3^+} F(x)$

(c) $\lim_{x \to 3} F(x)$ (d) $F(3)$

(e) $\lim_{x \to -\infty} F(x)$ (f) $\lim_{x \to +\infty} F(x)$.

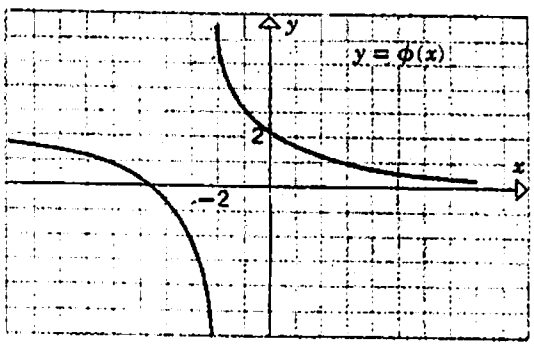


7. For the function ϕ graphed below, find

(a) $\lim_{x \to -2^-} \phi(x)$ (b) $\lim_{x \to -2^+} \phi(x)$

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

(e) $\lim_{x \to -\infty} \phi(x)$ (f) $\lim_{x \to +\infty} \phi(x)$.

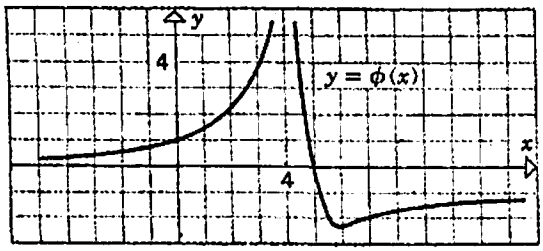


8. For the function ϕ graphed below, find

(a) $\lim_{x \to 4^-} \phi(x)$ (b) $\lim_{x \to 4^+} \phi(x)$

(c) $\lim_{x \to 4} \phi(x)$ (d) $\phi(4)$

(e) $\lim_{x \to -\infty} \phi(x)$ (f) $\lim_{x \to +\infty} \phi(x)$.

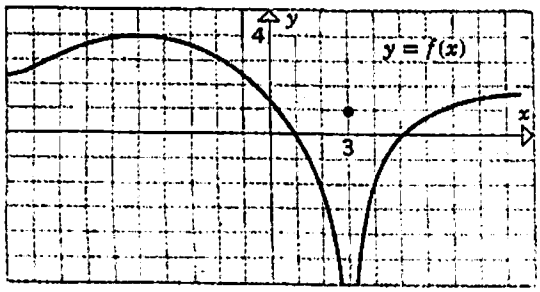


9. For the function f graphed below, find

(a) $\lim_{x \to 3^-} f(x)$ (b) $\lim_{x \to 3^+} f(x)$

(c) $\lim_{x \to 3} f(x)$ (d) $f(3)$

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

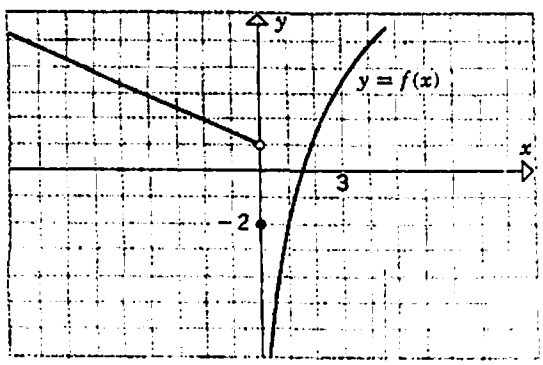


10. For the function f graphed below, find

(a) $\lim_{x \to 0^-} f(x)$ (b) $\lim_{x \to 0^+} f(x)$

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

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

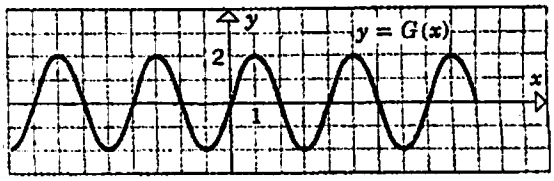


11. For the function G graphed below, find

(a) $\lim_{x \to 0^-} G(x)$ (b) $\lim_{x \to 0^+} G(x)$

(c) $\lim_{x \to 0} G(x)$ (d) $G(0)$

(e) $\lim_{x \to -\infty} G(x)$ (f) $\lim_{x \to +\infty} G(x)$.

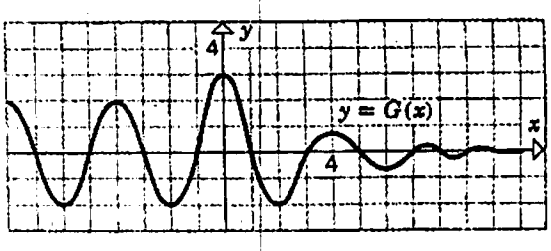


12. For the function G graphed below, find

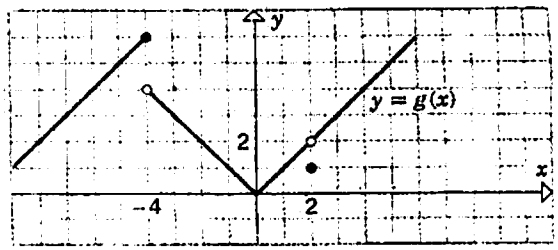
(a) $\lim_{x \to 0^-} G(x)$ (b) $\lim_{x \to 0^+} G(x)$

(c) $\lim_{x \to 0} G(x)$ (d) $G(0)$

(e) $\lim_{x \to -\infty} G(x)$ (f) $\lim_{x \to +\infty} G(x)$.



13. Consider the function g graphed below. For what values of x_0 does $\lim_{x \to x_0} g(x)$ exist?



14. Consider the function f graphed below. For what values of x_0 does $\lim_{x \to x_0} f(x)$ exist?