

1. Answer the questions about the functions graphed below.

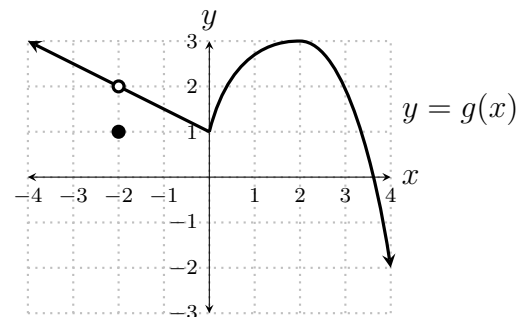
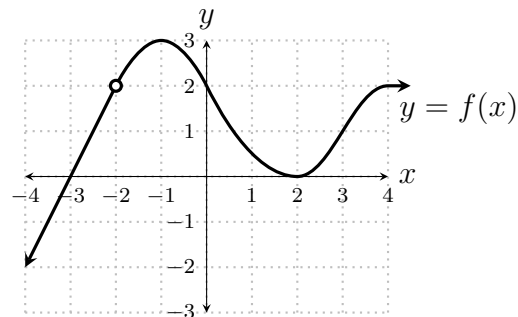
(a) $g(f(0)) =$

(b) $\lim_{x \rightarrow 0} f(x) =$

(c) $\lim_{x \rightarrow -2} f(x) =$

(d) $\lim_{x \rightarrow 3} (f(x) - 2g(x)) =$

(e) $\lim_{x \rightarrow -2} \sqrt{f(x) + g(x)} =$



2. $\lim_{x \rightarrow 3} \frac{2^x}{x^2 - 5} =$

3. $\lim_{x \rightarrow 4} \left(\frac{5}{2x} - \frac{1}{2} \right)^{1/3} =$

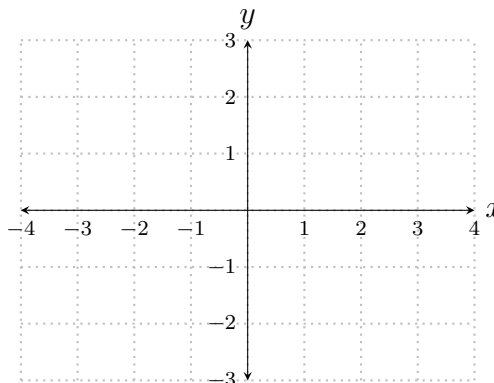
4. Draw the graph of **one** function f , with domain $[-4, 1) \cup (1, 4]$, meeting the following conditions.

(a) $\lim_{x \rightarrow 1^-} f(x) = -2$

(b) $\lim_{x \rightarrow 1} f(x)$ DNE

(c) $\lim_{x \rightarrow -2} f(x) = 0$

(d) $f(-3) = f(3)$



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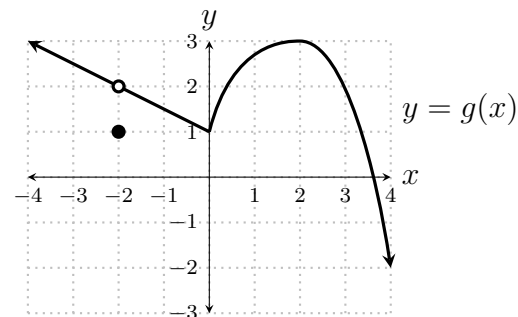
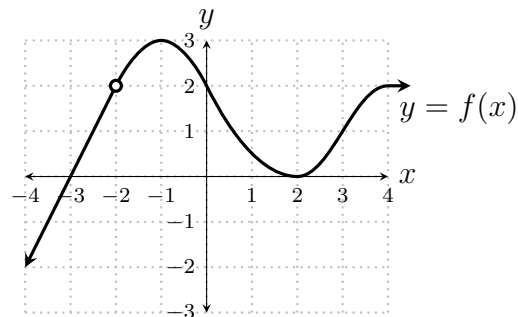
(a) $f(g(3)) =$

(b) $\lim_{x \rightarrow 3} f(x) =$

(c) $\lim_{x \rightarrow -2} 2f(x) =$

(d) $\lim_{x \rightarrow 3} (f(x) + g(x)) =$

(e) $\lim_{x \rightarrow -2} \left(\frac{1}{f(x)} + \frac{1}{g(x)} \right) =$



2. $\lim_{x \rightarrow 3} \frac{3^x + 3}{x^2 + 1} =$

3. $\lim_{x \rightarrow 8} \left(\frac{14}{x} + \frac{1}{2} \right)^{1/2} =$

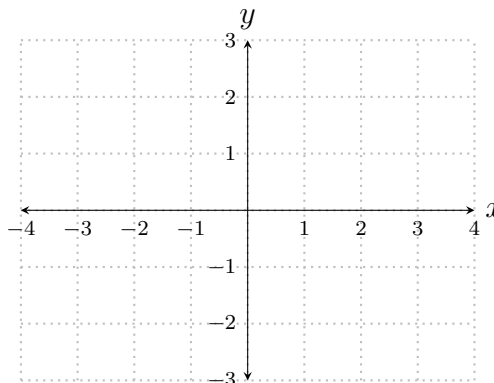
4. Draw the graph of **one** function f , with domain $[-4, 1) \cup (1, 4]$, meeting the following conditions.

(a) $\lim_{x \rightarrow 1^+} f(x) = 2$

(b) $\lim_{x \rightarrow 1} f(x)$ DNE

(c) $\lim_{x \rightarrow 0} f(x) = 1$

(d) $f(-2) = f(2)$



1. Answer the questions about the functions graphed below.

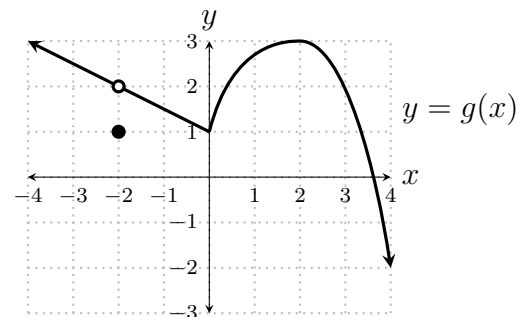
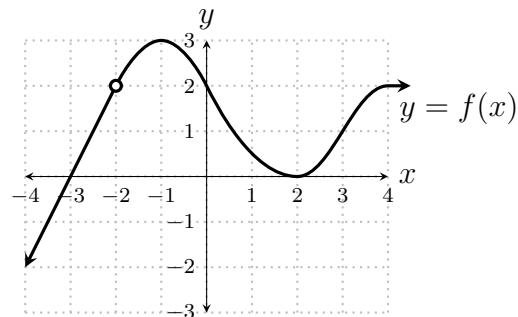
(a) $g(f(-1)) =$

(b) $\lim_{x \rightarrow 2} g(x) =$

(c) $\lim_{x \rightarrow -2} 3g(x) =$

(d) $\lim_{x \rightarrow 3} (f(x) - g(x)) =$

(e) $\lim_{x \rightarrow -2} \left(\frac{5}{f(x)} + \frac{3}{g(x)} \right) =$



2. $\lim_{x \rightarrow 4} \frac{2^x - 1}{\sqrt{x} + 1} =$

3. $\lim_{x \rightarrow 4} \left(\frac{5}{2x} - \frac{1}{2} \right)^{2/3} =$

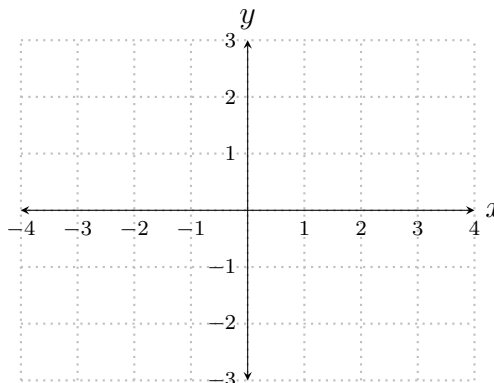
4. Draw the graph of **one** function f , with domain $[-4, 0) \cup (0, 4]$, meeting the following conditions.

(a) $\lim_{x \rightarrow 0} f(x)$ DNE

(b) $\lim_{x \rightarrow 0^+} f(x) = 2$

(c) $\lim_{x \rightarrow -1} f(x) = 3$

(d) $f(-3) = -f(3)$



1. Answer the questions about the functions graphed below.

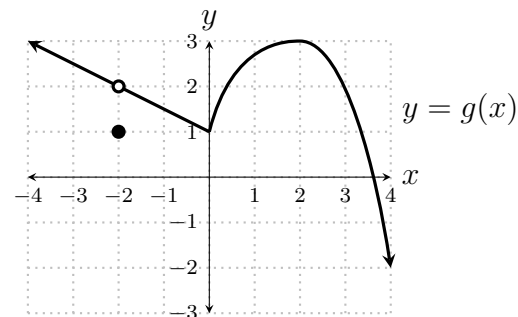
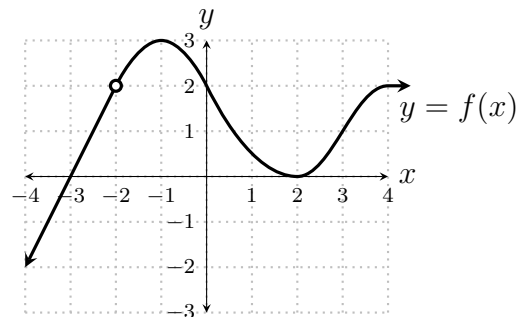
(a) $g(f(2)) =$

(b) $\lim_{x \rightarrow 2} f(x) =$

(c) $\lim_{x \rightarrow 2} 4g(x) =$

(d) $\lim_{x \rightarrow 3} (2f(x) - g(x)) =$

(e) $\lim_{x \rightarrow -2} \frac{3 + f(x)}{\sqrt{7 + g(x)}} =$



2. $\lim_{x \rightarrow -1} \frac{3^x}{x^2 + 1} =$

3. $\lim_{x \rightarrow 2} \left(\frac{5}{2x^2} - \frac{1}{2} \right)^{2/3} =$

4. Draw the graph of **one** function f , with domain $[-4, -2) \cup (-2, 4]$, meeting the following conditions.

(a) $\lim_{x \rightarrow -2^-} f(x) = 2$

(b) $\lim_{x \rightarrow -2} f(x)$ DNE

(c) $\lim_{x \rightarrow 2} f(x) = 1$

(d) $f(0) = f(2)$

