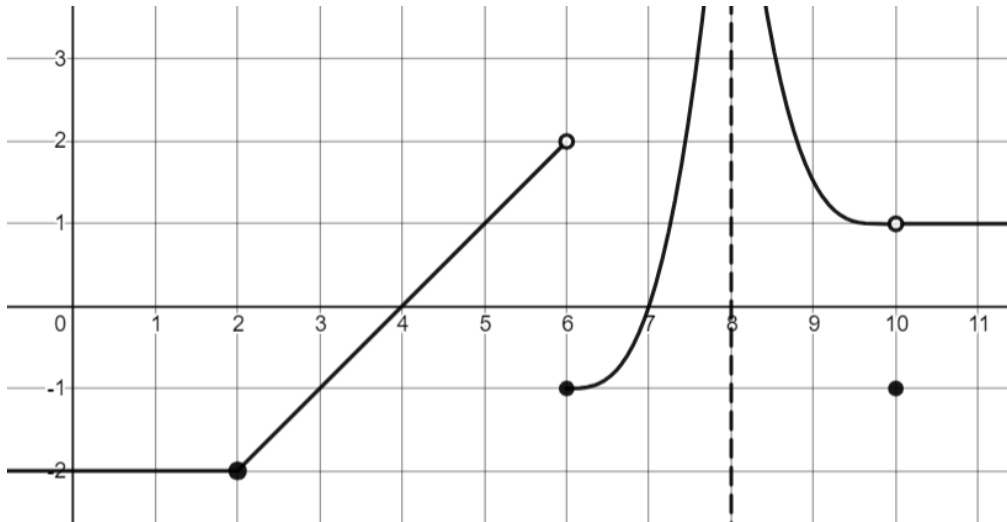




Problem Set 1: Graphs of Limits

1. Evaluate the limits using the graph.



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

b) $\lim_{x \rightarrow 6} f(x)$

c) $\lim_{x \rightarrow 8} f(x)$

d) $\lim_{x \rightarrow 10} f(x)$

e) $\lim_{x \rightarrow 6^-} f(x)$

f) $\lim_{x \rightarrow 6^+} f(x)$

g) $\lim_{x \rightarrow 8^-} f(x)$

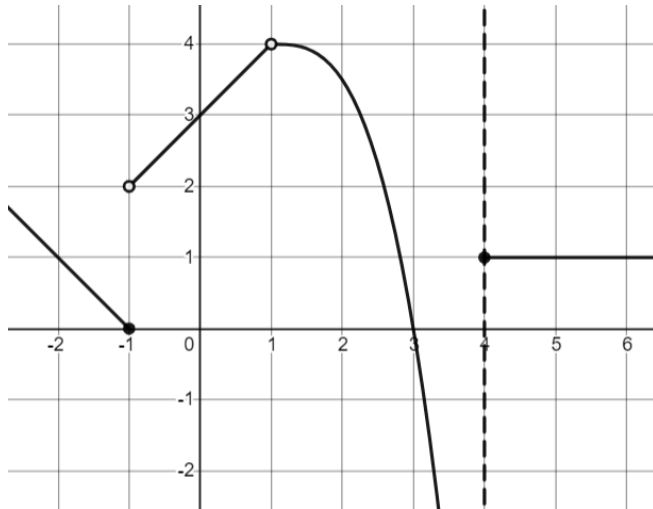
h) $\lim_{x \rightarrow 10^+} f(x)$

i) $\lim_{x \rightarrow 2^+} f(x)$

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2. Evaluate the limits using the graph.



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

b) $\lim_{x \rightarrow -1^+} f(x)$

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

d) $\lim_{x \rightarrow 4^-} f(x)$

e) $\lim_{x \rightarrow 4^+} f(x)$

f) $\lim_{x \rightarrow 4} f(x)$

g) $\lim_{x \rightarrow 1^-} f(x)$

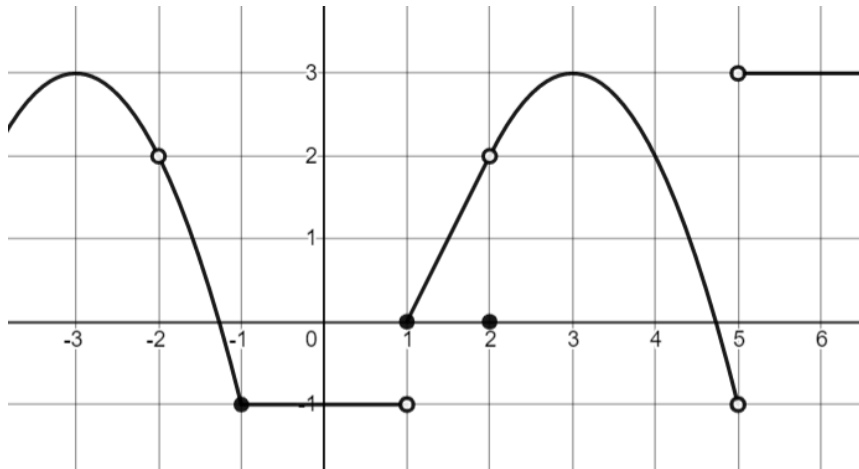
h) $\lim_{x \rightarrow 1^+} f(x)$

i) $\lim_{x \rightarrow 1} f(x)$

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3. Find the value of the function and the limits at the following points:



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

b) $f(2)$

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

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

e) $f(-2)$

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

g) $\lim_{x \rightarrow 5} f(x)$

h) $f(5)$

i) $\lim_{x \rightarrow 5^+} f(x)$