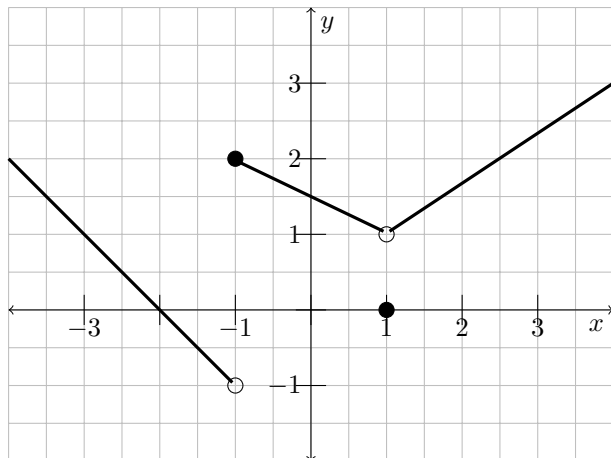


2. For the function f whose graph is shown, state the value of each quantity if it exists, otherwise explain why it doesn't exist.



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

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

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

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

1. Use the ϵ δ definition of the limit to prove that $\lim_{x \rightarrow 4} \left(\frac{x}{2} - 3 \right) = -1$.