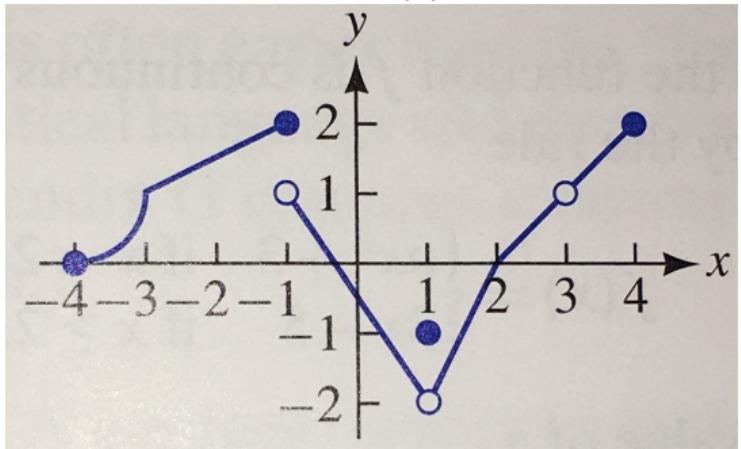


1. Use the graph of  $y = f(x)$  to find the following:



(a)  $\lim_{x \rightarrow 3} f(x)$

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

(b)  $f(1)$

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

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

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

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

(h)  $f(-1)$

2. Find the following limits by either graphing or substituting nearby values

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

(c)  $\lim_{h \rightarrow 0} \frac{\sin(h)}{h}$  where  $h$  is measured in radians

(b)  $\lim_{h \rightarrow 0} \frac{(1 + h)^2 - 1}{h}$

(d)  $\lim_{h \rightarrow 0} \frac{\sin(h)}{h}$  where  $h$  is measured in degrees