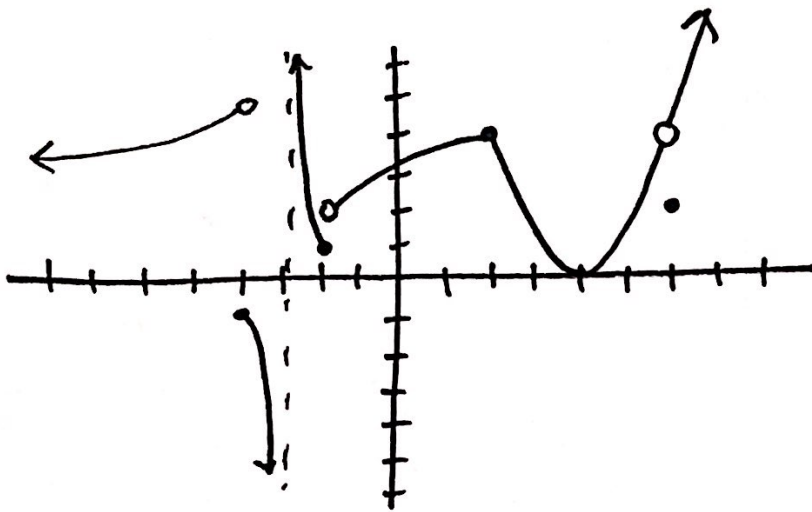


1) State the limit or value.



a) $f(-2) = \underline{\hspace{2cm}}$

b) $\lim_{x \rightarrow -2} f(x) = \underline{\hspace{2cm}}$

c) $f(-4) = \underline{\hspace{2cm}}$

d) $\lim_{x \rightarrow -4} f(x) = \underline{\hspace{2cm}}$

e) $\lim_{x \rightarrow -3} f(x) = \underline{\hspace{2cm}}$

f) $\lim_{x \rightarrow 6} f(x) = \underline{\hspace{2cm}}$

g) $f(6) = \underline{\hspace{2cm}}$

2) Evaluate the limit.

a) $\lim_{x \rightarrow 4} \frac{x^2 - 2x - 8}{x - 4}$

b) $\lim_{x \rightarrow 9} \frac{x - 9}{\sqrt{x} - 3}$

c) $\lim_{x \rightarrow 2} \frac{(2x+1)^2 - 25}{x - 2}$

d) $\lim_{x \rightarrow 1} \frac{\frac{2x}{x+1} - 1}{x - 1}$

e) $\lim_{\theta \rightarrow 0} \frac{6 - 6\cos\theta}{\theta}$

f) $\lim_{x \rightarrow 0} \frac{3\sin x}{x} + 1$

3) Name the discontinuity on the graph from #1 at...

$f(-4) = \underline{\hspace{4cm}}$

$f(-3) = \underline{\hspace{4cm}}$

$f(6) = \underline{\hspace{4cm}}$

4) State the discontinuities and the interval of continuity for...

$$f(x) = \begin{cases} \frac{1}{x+1}, & x \leq 1 \\ \frac{1}{3-x}, & x > 1 \end{cases}$$