

AP Calculus  
Chapter 1 Review

1. Answer each of the following questions for  $g(x) = \frac{\cos x}{3x^2 - 5x}$ . (*calculator allowed*)

a)  $\lim_{x \rightarrow 0^+} g(x) =$

b)  $\lim_{x \rightarrow 0^-} g(x) =$

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

d)  $g(0) =$

e)  $\lim_{x \rightarrow \pi} g(x) =$

2. Evaluate each of the following limits. Do not use a calculator.

a)  $\lim_{x \rightarrow 3} \frac{3x^2 - 8x - 3}{x - 3} =$

b)  $\lim_{x \rightarrow 3} \frac{x - 3}{3x^2 - 8x - 3} =$

c)  $\lim_{x \rightarrow 2^+} \frac{5}{x - 2} =$

d)  $\lim_{x \rightarrow 3/4^-} \frac{-7}{3 - 4x} =$

3. Use the graph to answer each question.

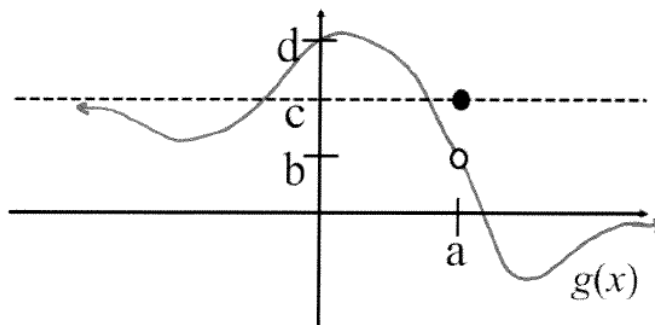
a)  $\lim_{x \rightarrow \infty} g(x) =$

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

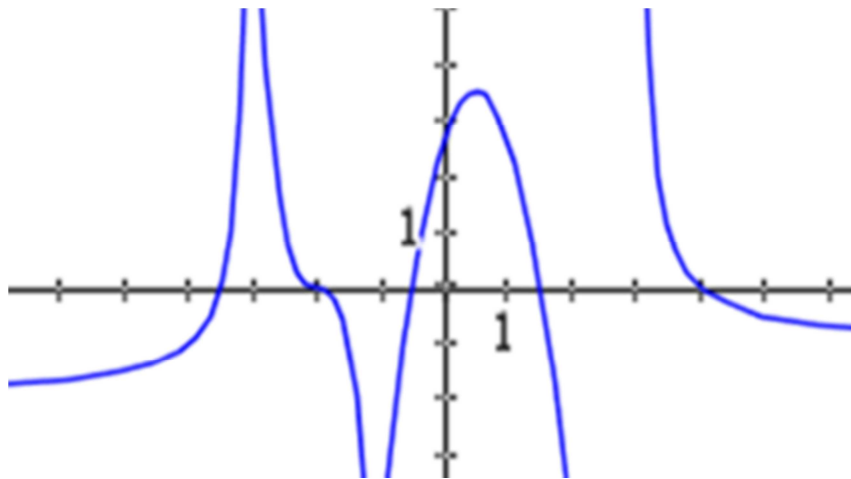
c)  $\lim_{x \rightarrow a^+} g(x) =$

d)  $\lim_{x \rightarrow a^-} g(x) =$

e)  $g(a) =$



4. Use the graph of  $g(x)$  to answer each question.



a)  $\lim_{x \rightarrow \infty} g(x) =$

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

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

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

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

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

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

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

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

j)  $\lim_{x \rightarrow 3} g(x) =$

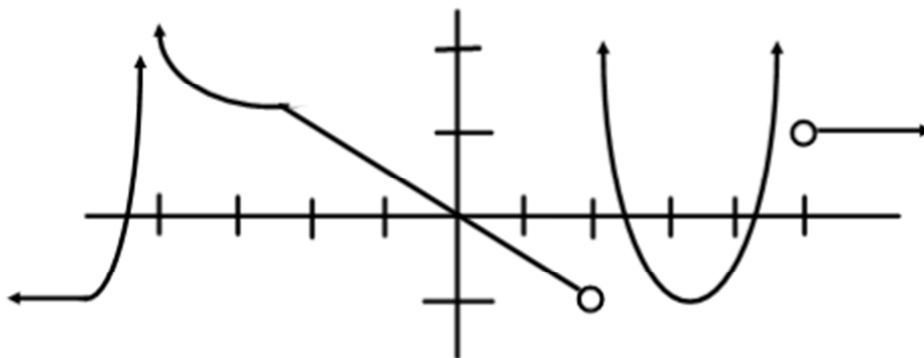
k)  $g(-3) =$

l)  $g(-2) =$

m)  $g(0) =$

n)  $\lim_{x \rightarrow 0} g(x) =$

5. Use the graph of  $h(x)$  to answer each question.



a)  $\lim_{x \rightarrow \infty} h(x) =$

b)  $\lim_{x \rightarrow -\infty} h(x) =$

c)  $\lim_{x \rightarrow -4^+} h(x) =$

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

e)  $\lim_{x \rightarrow -4} h(x) =$

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

g)  $\lim_{x \rightarrow 2^-} h(x) =$

h)  $\lim_{x \rightarrow 2} h(x) =$

i)  $\lim_{x \rightarrow 3} h(x) =$

j)  $\lim_{x \rightarrow 4} h(x) =$

k)  $h(-4) =$

l)  $h(2) =$

m)  $h(0) =$

n)  $\lim_{x \rightarrow 0} h(x) =$