

AP Calculus  
HW Limits 1.2

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

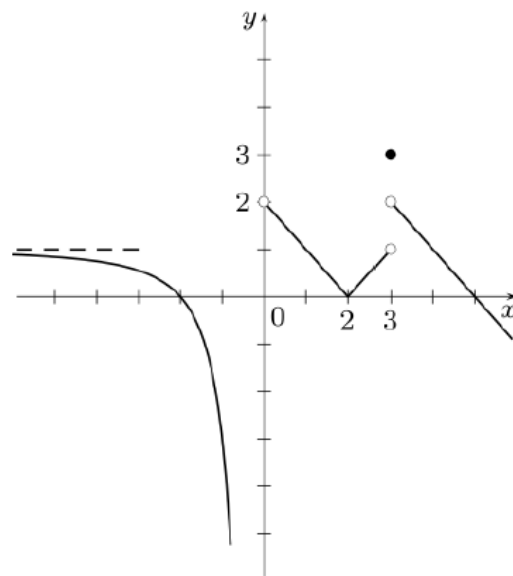
1. Find:  $f(0)$        $f(2)$        $f(3)$

$$\lim_{x \rightarrow 0^-} f(x) \qquad \lim_{x \rightarrow 0^+} f(x) \qquad \lim_{x \rightarrow 0} f(x)$$

$$\lim_{x \rightarrow 3^-} f(x) \qquad \lim_{x \rightarrow 3^+} f(x) \qquad \lim_{x \rightarrow 3} f(x)$$

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

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



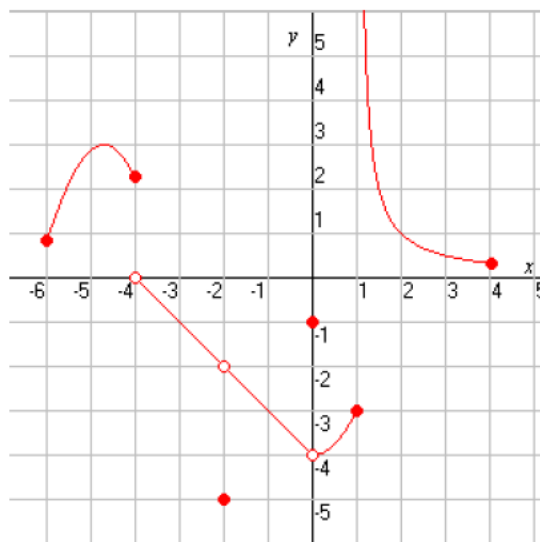
2. Find:  $f(0)$        $f(-4)$        $f(1)$        $f(-2)$

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

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

$$\lim_{x \rightarrow 0^-} f(x) \qquad \lim_{x \rightarrow 0^+} f(x) \qquad \lim_{x \rightarrow 0} f(x)$$

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



3. Find  $f(0)$        $f(-3)$        $f(-5)$        $f(2)$

$$\lim_{x \rightarrow 0^-} f(x) \qquad \lim_{x \rightarrow 0^+} f(x) \qquad \lim_{x \rightarrow 0} f(x)$$

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

$$\lim_{x \rightarrow -3} f(x) \qquad \lim_{x \rightarrow -5} f(x) \qquad \lim_{x \rightarrow \infty} f(x)$$

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



4. Find  $f(0)$

$f(-1)$

$f(2)$

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

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

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

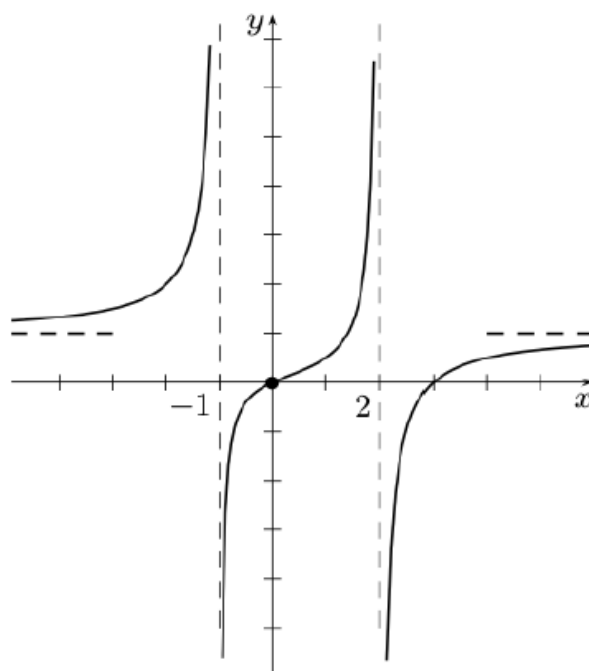
$$\lim_{x \rightarrow 2^-} f(x)$$

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

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

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

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

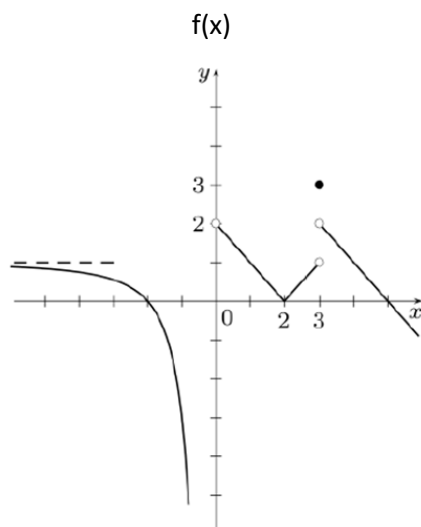


5. Use a table of values to evaluate the following limits. (Numerically) Use at least 3 points on each side.

a.  $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x - 1}$

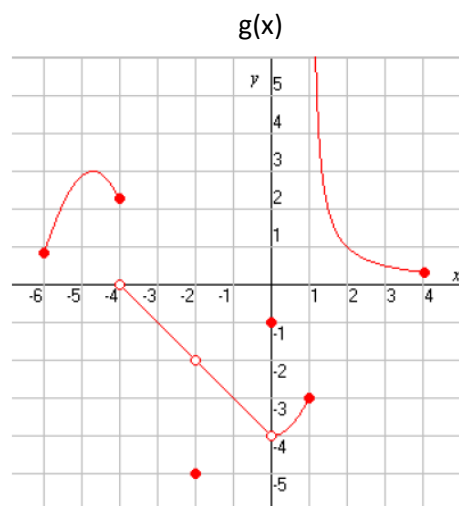
b.  $\lim_{x \rightarrow 0} \frac{x+1}{x}$

6. Find the limit.



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

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



$$\lim_{x \rightarrow 0} f(g(x))$$