UB2

Current Score: 0/37

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Points	0/7	0/7	0/1	0/1	0/1	0/1	0/4	0/8	0/1	0/2	0/1	0/1	0/1	0/1

Total
0/37

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1.   0/7 points   LarCalc9 1.2.001. [1096623]

Consider the following limit.

$$\lim_{x \to 2} \frac{x - 2}{x^2 - 20x + 36}$$

Complete the table. (Round your answers to four decimal places.)

x	1.9	1.99	1.999	2	2.001	2.01	2.1
$f(x)$	⬚	⬚	⬚	?	⬚	⬚	⬚

Use the result to estimate the limit. (If you need to use ∞ or −∞, enter INFINITY or −INFINITY, respectively. If an answer does not exist, enter DNE.)

⬚

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2.   0/7 points   LarCalc9 1.2.007. [1241226]

Consider the following limit.

$$\lim_{x \to 0} \frac{4 \sin(x)}{x}$$

Complete the table below. (Round your answers to five decimal places.)

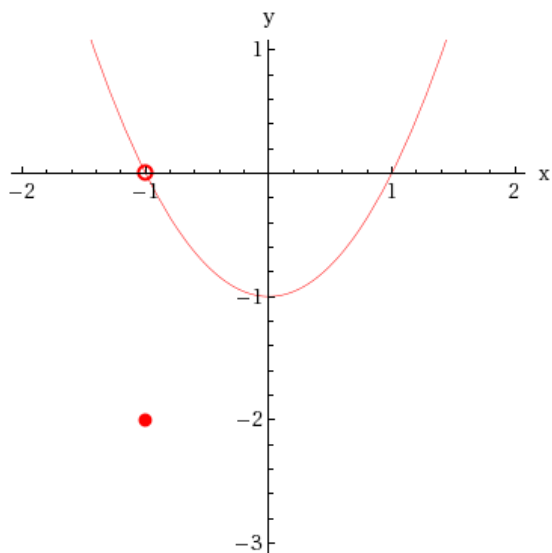| x	-0.1	-0.01	-0.001	0.001	0.01	0.1
$f(x)$	⬚	⬚	⬚	⬚	⬚	⬚

Use the table to estimate the limit. Use a graphing utility to graph the function to confirm your result. (Round your answer to five decimal places.)

⬚

3.   0/1 points   LarCalc9 1.2.018. [1245622]

Consider the following.

$$f(x) = \begin{cases} x^2 - 1 & \text{if } x \neq -1 \\ -2 & \text{if } x = -1 \end{cases}$$

Use the graph to find the limit below (if it exists). (If an answer does not exist, enter DNE.)
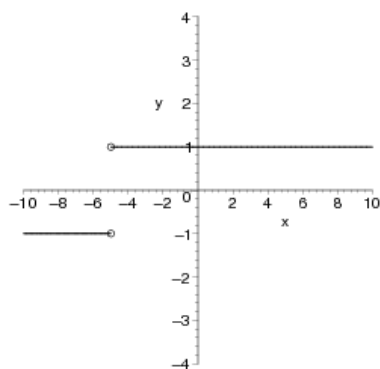
$$\lim_{x \to -1} f(x)$$

[   ]

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4.   0/1 points   LarCalc9 1.2.019. [1083769]

Consider the following.

$$\lim_{x \to -5} \frac{|x + 5|}{x + 5}$$

Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

[   ]

5. 0/1 points

Consider the following.

$$\lim_{x \to 5} \frac{5}{x - 5}$$

Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

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6. 0/1 points

Consider the following.

$$\lim_{x \to -4} \sin(\pi x)$$
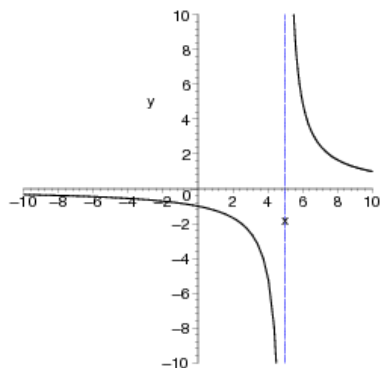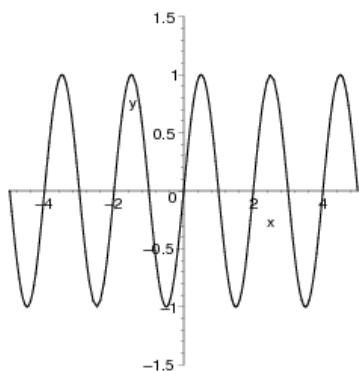

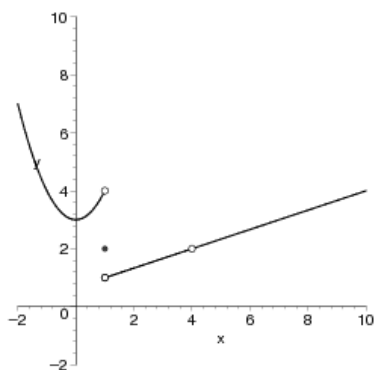Use the graph to find the limit (if it exists). (If an answer does not exist, enter DNE.)

7.   0/4 points   LarCalc9 1.2.025. [1083802]
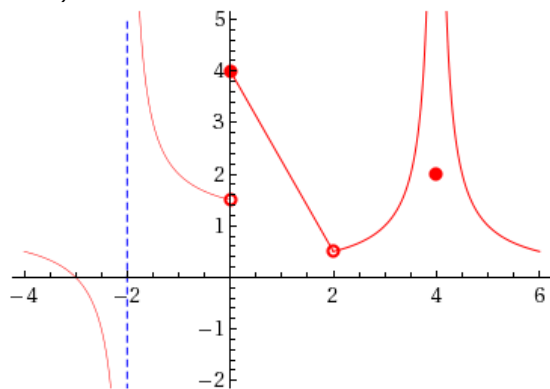
Use the graph of the function f to decide whether the value of the given quantity exists. If it does, find it. If it does not, enter DNE.

(a) $f(1)$

[   ]

(b) $\lim_{x \to 1} f(x)$

[   ]

(c) $f(4)$

[   ]

(d) $\lim_{x \to 4} f(x)$

[   ]

8.   0/8 points   LarCalc9 1.2.026. [1267766]

Use the graph of the function f to decide whether the value of the given quantity exists. (If an answer does not exist, enter DNE.)

(a) $f(-2)$

[   ]

(b) $\lim\limits_{x \to -2} f(x)$

[   ]

(c) $f(0)$

[   ]

(d) $\lim\limits_{x \to 0} f(x)$

[   ]

(e) $f(2)$

[   ]

(f) $\lim\limits_{x \to 2} f(x)$

[   ]

(g) $f(4)$

[   ]

(h) $\lim\limits_{x \to 4} f(x)$

[   ]
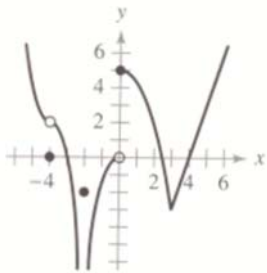
9.   0/1 points   LarCalc9 1.2.028. [1083790]

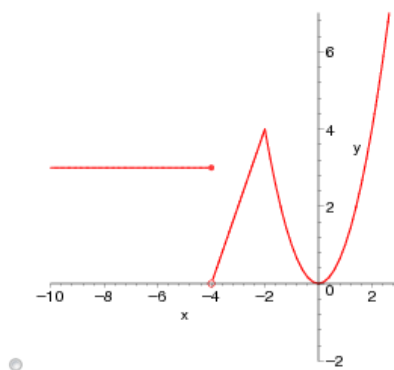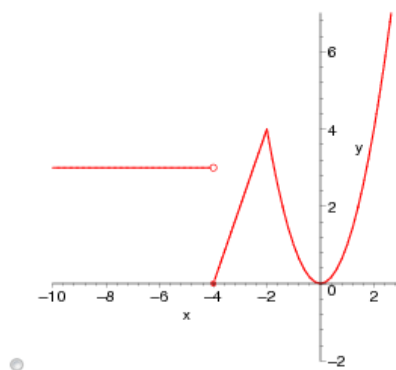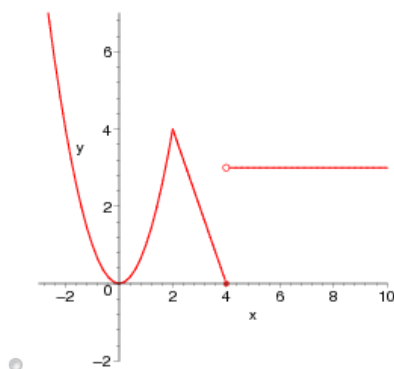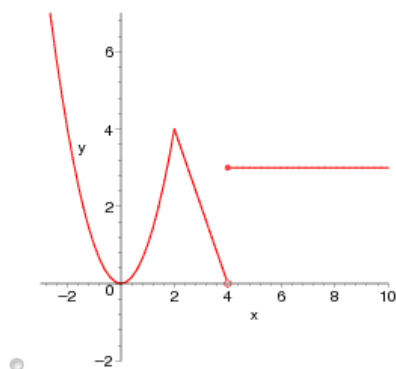Use the graph of the function f to identify the values of c for which $\lim_{x \to c} f(x)$ exists.

- ○ $c \ne$ -4, -2

- ○ $c \ne$ -2, 0

- ○ $\mathbb{R}$

- ○ $c \ne$ -4, -2, 0, 3

- ○ $c \ne$ -4, 0, 3

10.   0/2 points   LarCalc9 1.2.029.MI. [1267874]

Consider the following.

$$f(x) = \begin{cases} x^2, & x \leq 2 \\ 8 - 2x, & 2 < x < 4 \\ 3, & x \geq 4 \end{cases}$$

Sketch the graph of f.

Identify the values of c for which the following limit exists.

$$\lim_{x \to c} f(x)$$

- ⦿ The limit exists at all points on the graph.

- ⦿ The limit exists at all points on the graph except where $c = 2$ and $c = 4$.

- ⦿ The limit exists at all points on the graph except where $c = 2$.

- ⦿ The limit exists at all points on the graph except where $c = 4$.

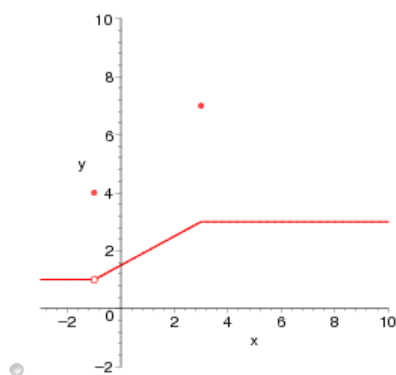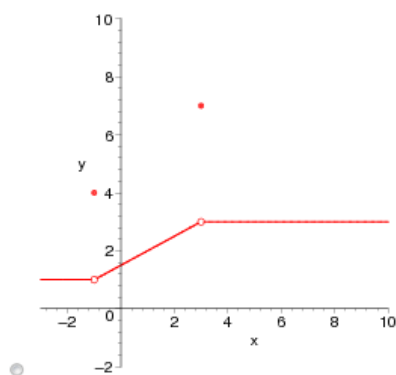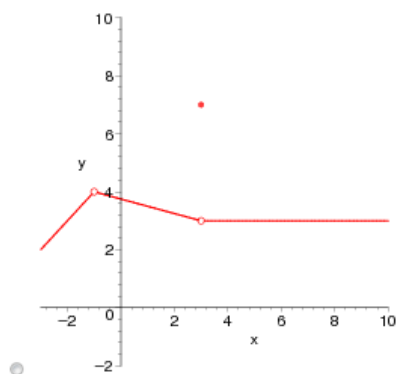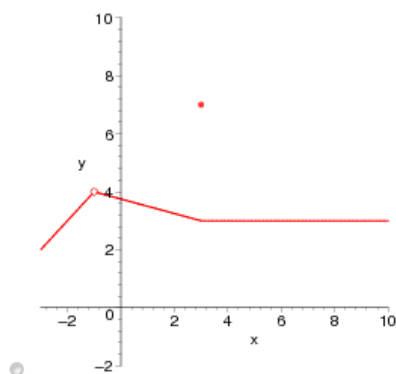**11.**   0/1 points   LarCalc9 1.2.031. [1083775]

Sketch a graph of a function *f* that satisfies the given values.

$f(-1)$ is undefined.

$$\lim_{x \to -1} f(x) = 4$$

$$f(3) = 7$$

$$\lim_{x \to 3} f(x) = 3$$

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12.   0/1 points   LarCalc9 1.2.043. [1083788]

Find the limit *L*. Then use the ε-δ definition to prove that the limit is *L*.

$$\lim_{x \to 2} (x + 8)$$

$L = $ [   ]

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13.   0/1 points   LarCalc9 1.2.044. [1241214]

Find the limit *L*. Then use the ε-δ definition to prove that the limit is *L*.

$$\lim_{x \to -2} (8x + 1)$$

$L = $ [   ]

14.   0/1 points   LarCalc9 1.2.050. [2143018]

Find the limit *L*. Then use the ε-δ definition to prove that the limit is *L*.

$$\lim_{x \to 49} \sqrt{x}$$

L = _____

Assignment Details