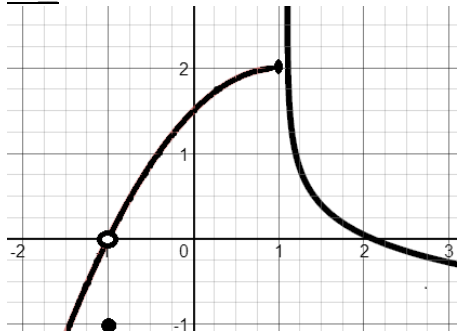
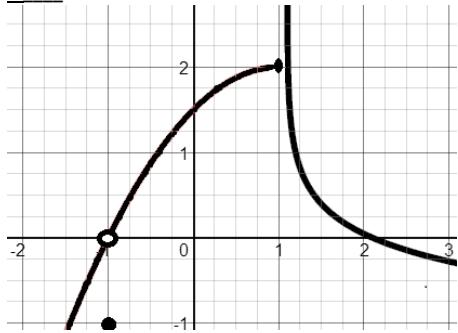


Directions: Beginning in the first cell marked #1, find the requested information. To advance in the circuit, hunt for your answer and mark that cell #2. Continue working in this manner until you complete the circuit.

<p>Ans: ∞ #1</p>  <p>Find $f(-1)$.</p>	<p>Ans: 0 #</p> $\lim_{x \rightarrow 0} \frac{\frac{1}{2+x} - \frac{1}{2}}{x}$
<p>Ans: DNE (and not ∞ or $-\infty$) #</p> $f(x) = \frac{x^3 - 4x^2 + 3x - 12}{x^2 - 6x + 8}$ <p>$f(x)$ has a hole at $x = ?$.</p>	<p>Ans: 0.249 #</p> $\lim_{x \rightarrow 0} \frac{\sqrt{x+3} - \sqrt{3}}{x}$
<p>Ans: 3 #</p>  <p>Find $\lim_{x \rightarrow 1} f(x)$</p>	<p>Ans: -1 #</p> $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x^2 + x - 2}$
<p>Ans: 2 #</p> $\lim_{x \rightarrow 1^-} \frac{x}{x^2 - 1}$	<p>Ans: -2 #</p> $\lim_{\Delta x \rightarrow 0} \frac{(4 + \Delta x)^2 - 3(4 + \Delta x) - 4}{\Delta x}$

Ans: $-\frac{1}{4}$

$$f(x) = \frac{x^2 - 5x + 6}{x^2 + 2x - 15}$$

$f(x)$ has a vertical asymptote at $x = ?$.

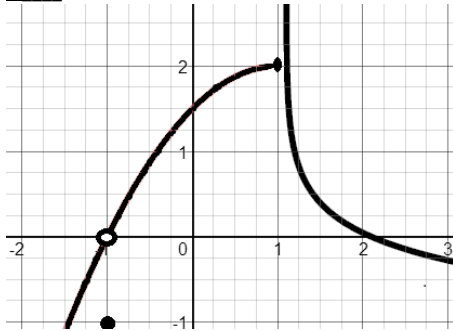
Ans: 4

Is $f(x) = \begin{cases} \cos x, & x < 0 \\ x^2 + 1, & x \geq 0 \end{cases}$ continuous at $x = 0$?

If yes, it is continuous, then go find the Ans: -2.

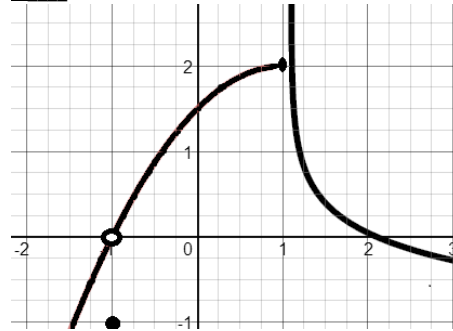
If no, it is not continuous, then go find the Ans: 5.

Ans: $-\infty$



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

Ans: 5



Find $f(1)$.

Ans: 0.289

Is $f(x) = \begin{cases} x, & x \leq 1 \\ 2x - 3, & x > 1 \end{cases}$ continuous at $x = 1$?

If yes, it is continuous, then go find the Ans: 3.

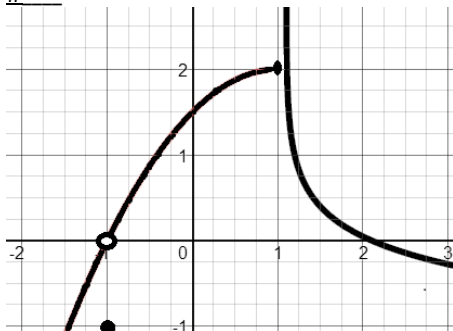
If no, it is not continuous, then go find the Ans: -4.

Ans: -5

$$f(x) = \frac{x^2 - 5x + 6}{x^2 + 2x - 15}$$

$f(x)$ has a removable discontinuity at $x = ?$.

Ans: -4



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

Ans: 1

x	1.9	1.99	1.999	2	2.001	2.01	2.1
$f(x)$	A	B	C	-	D	E	F

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

Filling in the table above, what value would take the place of E ? (Round to three places.)