

1. Based on the information below, which of the following statements is always true?

As x approaches ∞ , $f(x)$ approaches 1.957.

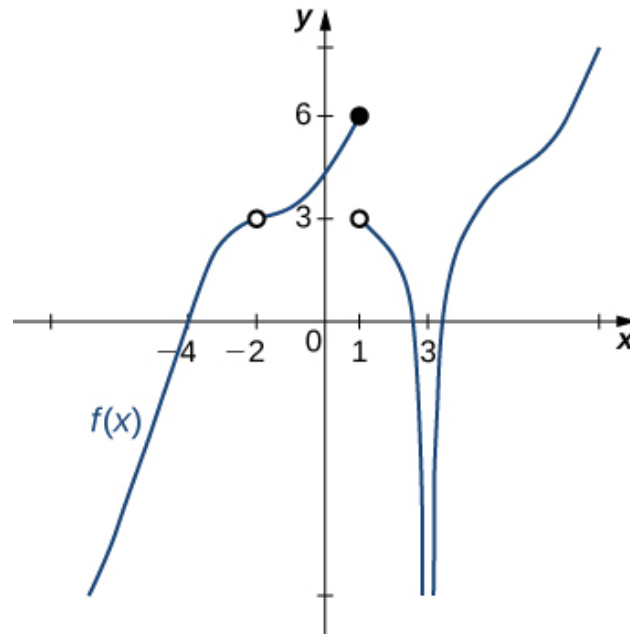
- A. $f(x)$ is close to or exactly 1.957 when x is large enough.
 - B. $f(x)$ is undefined when x is large enough.
 - C. $f(x)$ is close to or exactly ∞ when x is large enough.
 - D. $f(x)$ is undefined when $f(x)$ is large enough.
 - E. None of the above are always true.
-

2. To estimate the one-sided limit of the function below as x approaches 6 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{6}{x} - 1}{x - 6}$$

- A. $\{5.9000, 5.9900, 6.0100, 6.1000\}$
 - B. $\{6.1000, 6.0100, 6.0010, 6.0001\}$
 - C. $\{6.0000, 5.9000, 5.9900, 5.9990\}$
 - D. $\{6.0000, 6.1000, 6.0100, 6.0010\}$
 - E. $\{5.9000, 5.9900, 5.9990, 5.9999\}$
-

3. For the graph below, find the value(s) a that makes the limit true:
 $\lim_{x \rightarrow a} f(x) = -\infty$.



- A. -2
- B. 3
- C. $-\infty$
- D. Multiple a make the limit true.
- E. No a make the limit true.

4. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 2^+} \frac{1}{(x+2)^8} + 3$$

- A. $f(2)$
- B. $-\infty$
- C. ∞
- D. The limit does not exist
- E. None of the above

5. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 9} \frac{\sqrt{8x - 47} - 5}{4x - 36}$$

- A. 0.707
 - B. 0.200
 - C. ∞
 - D. 0.100
 - E. None of the above
-