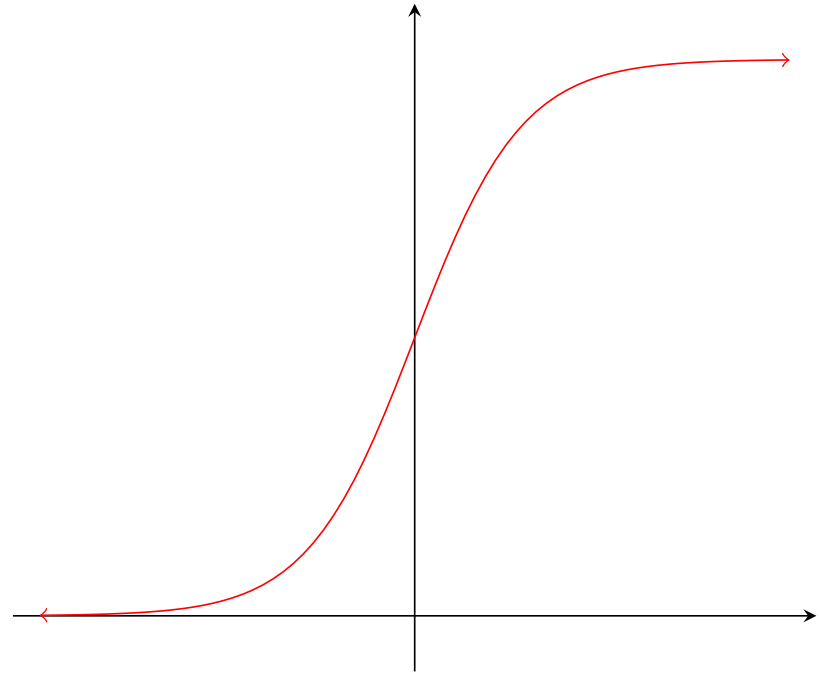
1. The graph of the function f is depicted to the right.

What is $\lim_{a \to \infty} f'(a)$?



(A) -1

(B) 0

(C) 1

(D) None of the above.

2. Let $f(x) = |x^2 - 1|$. For how many values of a does $f'(a)$ not exist?

(A) None

(B) 1

(C) 2

(D) 3 or more

3. True or False?

The function $f(x) = \sqrt[3]{x}$ is differentiable at $x = 0$.

4. True or False?

The function f defined by $f(x) = x|x|$ is differentiable at $x = 0$.

5. At how many points on the graph of $f(x) = x^2 + 3x - 7$ is the tangent line horizontal?

(A) None.

(B) 1.

(C) 2.

(D) 3 or more.

6. If f and g are functions such that

$$f(0) = 5 \quad f'(0) = 2 \quad g(0) = 3 \quad g'(0) = 2$$

then which of the following is $(fg)'(0)$?

(A) 4

(B) 6

(C) 8

(D) None of the above