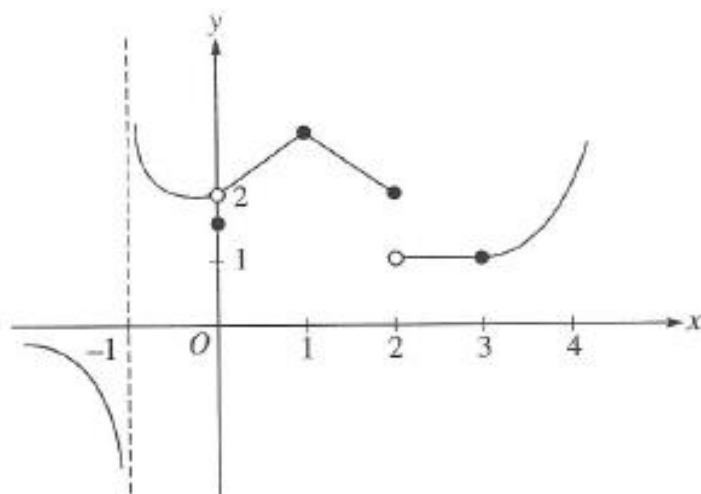


Week 11 Warm up Calculus AB



The graph of a function f is shown above. If $\lim_{x \rightarrow b} f(x)$ exists and f is not continuous at b , then $b =$

- (A) -1
- (B) 0
- (C) 1
- (D) 2
- (E) 3

x	1.1	1.2	1.3	1.4
$f(x)$	4.18	4.38	4.56	4.73

Let f be a function such that $f''(x) < 0$ for all x in the closed interval $[1, 2]$. Selected values of f are shown in the table above. Which of the following must be true about $f'(1.2)$?

- (A) $f'(1.2) < 0$
- (B) $0 < f'(1.2) < 1.6$
- (C) $1.6 < f'(1.2) < 1.8$
- (D) $1.8 < f'(1.2) < 2.0$
- (E) $f'(1.2) > 2.0$

Two particles start at the origin and move along the x -axis. For $0 \leq t \leq 10$, their respective position functions are given by $x_1 = \sin t$ and $x_2 = e^{-2t} - 1$. For how many values of t do the particles have the same velocity?

- (A) None
- (B) One
- (C) Two
- (D) Three
- (E) Four