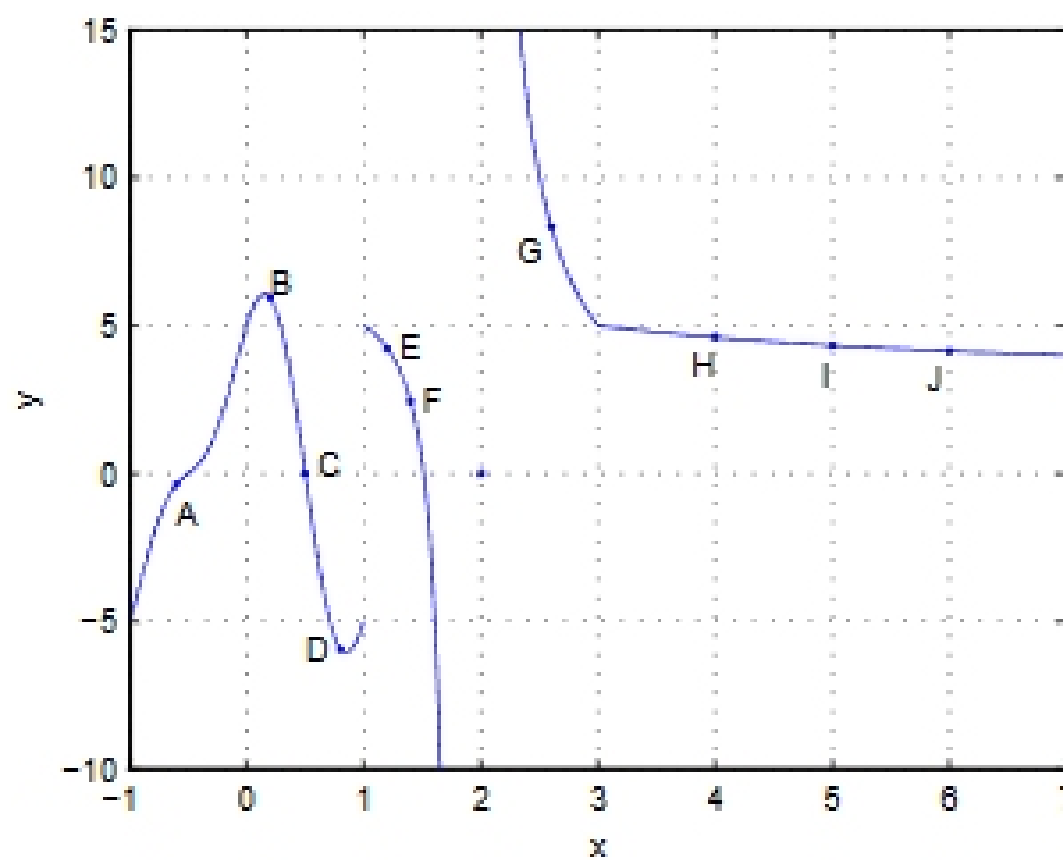


EXAM 1, MATH 131
WEDNESDAY, FEBRUARY 8, 2006

Problems 1 through 14 are multiple choice and worth five points apiece. Problems 15 through 17 are hand-graded and worth ten points apiece. There is a total of 100 points for the whole examination. Do all work in the exam booklet. You may use a scientific calculator, but NOT a graphing calculator.

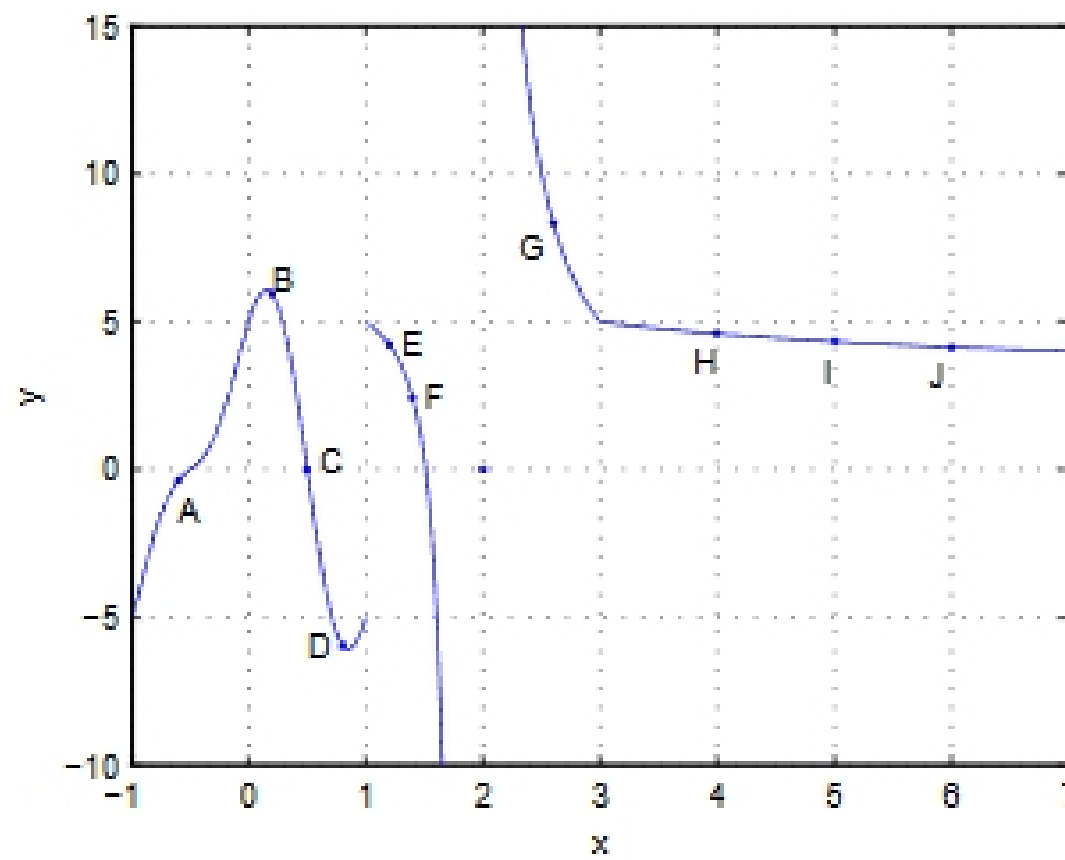
(1) The graph of the function $y = f(x)$ is



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

- (A) 15
- (B) 10
- (C) 5
- (D) 0
- (E) -5
- (F) -10
- (G) -15
- (H) $-\infty$
- (I) ∞
- (J) Does not exist.

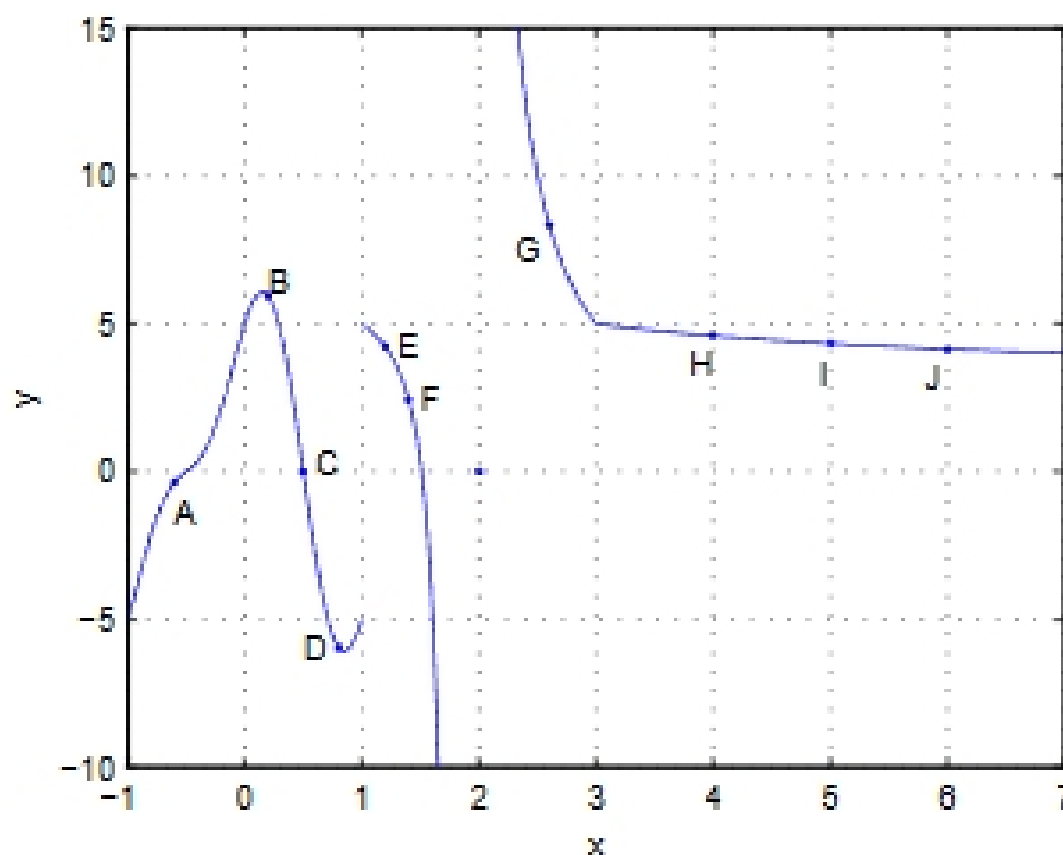
(2) The graph of the function $y = f(x)$ is



Find the point where the instantaneous rate of change of y with respect to x is greatest. (Be careful of the sign).

- (A) A
- (B) B
- (C) C
- (D) D
- (E) E
- (F) F
- (G) G
- (H) H
- (I) I
- (J) J

(3) The graph of the function $y = f(x)$ is



Find

$$\lim_{x \rightarrow 3} f(x)$$

- (A) Does not exist.
- (B) 1
- (C) 2
- (D) 3
- (E) 4
- (F) 5
- (G) 6
- (H) 7
- (I) 8
- (J) 9