Quiz #1 · Fri. Sep. 2, 2005

MATH 110 · Section 10 · Fall 2005 Name _____

1. Which of the following tables determine y as a function of x? (Hint: Please be very careful! This is a tricky question.)

(1)

x	y
5	2
6	4
8	4
9	5

(3)

x	y
2	9
3	5
4	3
3	5

(2)

x	y
5	2
6	3
7	5
5	6

(A) All of them (B) 1 and 2 only (C) 2 only
(D) 1 and 2 only (E) 2 and 3 only

2. Which of the following has a domain of all real numbers except 8?
(1) $g(x) = \frac{2x}{x-8}$ (2) $f(x) = \sqrt{x-8}$ (3) $h(x) = \frac{1}{x^2-64}$
(A) 1 only (B) 2 and 3 only (C) 2 only
(D) 1 and 2 only (E) All of them

3. What is the average rate of change for the function $f(x) = 2x^2 + 3$ on the interval $[-1, 4]$? (Hint: Use difference quotients.)
(A) 8 (B) -8 (C) -6
(D) 6 (E) None of these

4. Which of the following have a range of $[0, \infty)$?

(A) 2 only (B) 1 and 3 only (C) 1 only
(D) 1 and 2 only (E) All of them

5. Which of the following is the piecewise equation for the graph below?

(A) $f(x) = \begin{cases} -x^2 & \text{for} \quad x < 1 \\ 1/2 & \text{for} \quad x \geq 1 \end{cases}$ (B) $f(x) = \begin{cases} 1/2 & \text{for} \quad x > 1 \\ |x| & \text{for} \quad x < 1 \end{cases}$

(C) $f(x) = \begin{cases} -|x| & \text{for} \quad x < 1 \\ 1/2 & \text{for} \quad x \geq 1 \end{cases}$ (D) $f(x) = \begin{cases} 1/2 & \text{for} \quad x > 1 \\ -|x| & \text{for} \quad x < 1 \end{cases}$

(E) None of these