Math 1643 Quiz 2 – Sample name: _____

Instructor: _____ section: _____

Part One. Circle the correct answer.

1) Which of the following is symmetric with respect to the x – axis ?

A) $y = x^2 + 2$ B) $2xy = 5$ C) $4x - y^2 = 1$ D) $x = 4$ E) $y = |x| + 6$

2) Which of the following lines is parallel to the line with equation $3x - 2y = 11$?

A) $2x + 3y = 9$ B) $2x + 3y = 9$ C) $3x + 2y = 9$ D) $y = 3x + 15$ E) $6x - 4y = 9$

3) If $f(x) = -4x^2$, then what is $f(-3m^3)$?

A) $12m^5$ B) $36m^5$ C) $36m^6$ D) $-36m^6$ E) $-24m^6$

4) What is the slope of the line containing $(-4, 15)$ and $(8, 9)$?

A) 2 B) - 2 C) $-\frac{1}{2}$ D) $\frac{1}{2}$ E) $-\frac{3}{2}$

5) What is the center of the circle with equation $x^2 + y^2 + 46y - 62x - 911 = 0$?

A) $(-23, 31)$ B) $(31, -23)$ C) $(-31, 23)$ D) $(23, -31)$ E) $(62, -46)$

6) Find the distance between the two points $(15\frac{1}{2}, -19)$ and $(-\frac{1}{2}, 44)$?

A) 65 B) $\sqrt{4194}$ C) 30 D) $\sqrt{881}$ E) 54

7) Which of the following lines has zero slope?

A) $x = 9$ B) $y = x$ C) $y = -6$ D) $x - y = 0$ E) $1 - x - y = 0$

Part Two. Show your work and place your answer in the box provided.

8) You are given a line segment AB with A = (8 , - 15) and B is unknown. If you know that the midpoint is at (- 3 , 20) , then find the coordinates of point B.

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9) Find the equation of the line that is perpendicular to the line 8 x + 7 y = 40 and passes through the point (- 1 , 2)

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10) If f (x) = $-\frac{1}{4}$ x - 15 , then evaluate $\frac{f(-12) - f(20)}{4}$