Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Unit 03-03 Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

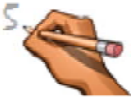
____ 1. Use the **COMPLETING THE SQUARE** method to solve the equation. After dividing both sides by 2 first, what would you then add to both sides of the equation to complete the square?

$$2x^2 - 20x ____ = 9 _____$$

a. + 10
b. + 20
c. + 25
d. + 100

____ 2. Use the **COMPLETING THE SQUARE** method to solve the equation. What would be the next step of solving the equation by completing the square?

$$2x^2 - 12x - 5 = 0$$
$$+5 \quad +5$$
$$2x^2 - 12x = 5$$



a. Determine half of –12
b. Determine the square of –6
c. Divide both sides of the equation by 2
d. Take the ± square root of both sides of the equation.

____ 3. Erica was using the **COMPLETING THE SQUARE** method to solve the quadratic equation below.

$$2x^2 - 12x - 5 = 0$$

$+5 \quad +5$

$$2x^2 - 12x \quad = \quad 5$$

$-6 \rightarrow 36$

$$2x^2 - 12x + 36 = 5 + 36$$

$$(x-6)^2 = 41$$

$$\sqrt{(x-6)^2} = \pm\sqrt{41}$$

Her friend Ryan, noticed that Jessica made an error or two and told her where she made her first mistake. Which of the below could be the error that Ryan told Jessica about?

a. Erica should have subtracted 5 from both sides first.
b. On the step where Erica added 36 to both sides, she really should have subtracted 36 from both sides.
c. Just before Erica completed the square, she should have first divide both sides of the entire equation by 2.
d. Erica should have added 6 to both sides before taking the square root of both sides.

____ 4. Solve the following equation by **COMPLETING THE SQUARE:**

$$x^2 - 6x - 3 = 0$$

a. $x = 3 \pm 2\sqrt{3}$
b. $x = -3 \pm \sqrt{12}$
c. $x = 3 \pm \sqrt{6}$
d. $x = -3 \pm 2\sqrt{6}$