

Unit 03-04 Quiz**Multiple Choice**

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

- _____ 1. Using the **quadratic formula** determine the solutions to the following equation:

$$x^2 - 8x - 2 = 0$$

- a. $x = 4 \pm 6\sqrt{2}$ c. $x = -2$ or 10
b. $x = 4 \pm \sqrt{72}$ d. $x = 4 \pm 3\sqrt{2}$

- _____ 2. Using the **quadratic formula** determine the solutions to the following equation:

$$2x^2 - 5x = 1$$

- a. $x = \frac{5 \pm \sqrt{33}}{4}$ c. $x = \frac{5 \pm \sqrt{17}}{2}$
b. $x = \frac{-5 \pm \sqrt{17}}{4}$ d. $x = \frac{-5 \pm \sqrt{33}}{2}$

- _____ 3. Consider the following equation:

$$(2x + 1)^2 - 5 = 3x^2 + 1$$

If we were to use the **quadratic formula**, what could be the values for a, b, and c?

- a. $a = 4, b = -3, c = 5$ c. $a = 1, b = 4, c = -5$
b. $a = 2, b = -4, c = 5$ d. $a = 5, b = 2, c = -4$

- _____ 4. A student named Scott was able to determine the solution of a quadratic equation was:

$$x = \frac{5 \pm \sqrt{7}}{3}$$

Which of the below answer shows the correct approximation of his answer?

- a. $x \approx -4.410$ or $x \approx 4.410$ c. $x \approx 0.785$ or $x \approx 2.549$
b. $x \approx 4.118$ or $x \approx 5.882$ d. $x \approx -0.979$ or $x \approx 4.312$

5.

Jason takes a jump shot. The height of the basketball could be described by the model:

$$h = -16t^2 + 30t + 8$$

' h ' describes the height of the ball in feet and ' t ' the time in seconds after the ball was released.

At what approximate times does the ball reach a height of 20 feet?
(use the quadratic formula)



a. $t \approx 0.827s$ and $1.347s$

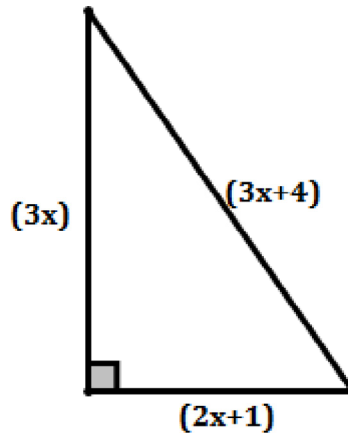
b. $t \approx 0.237s$ and $2.112s$

c. $t \approx 0.578s$ and $1.297s$

d. $t \approx 29.6s$ and $30.4s$

6.

Use the Pythagorean Theorem to find an approximate value of x that makes the diagram true.



a. $x \approx 4.89$

b. $x \approx 5.66$

c. $x \approx 5.97$

d. $x \approx 6.32$