

Unit 03-02 Quiz

Multiple Choice

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

- _____ 1. Which of the methods shows the problem, $2y^2 - 72 = 0$, being solved correctly using the **square root method**?

a.
$$\begin{array}{r} \cancel{2}y^2 - 72 = 0 \\ \hline y^2 - \cancel{72} = 0 \\ \hline y^2 = 72 \\ \sqrt{y^2} = \pm\sqrt{72} \\ y = \pm 6\sqrt{2} \end{array}$$

c.
$$\begin{array}{l} 2y^2 - 72 = 0 \\ 2(y^2 - 36) = 0 \\ 2(y+6)(y-6) = 0 \\ \begin{array}{cc} \swarrow & \searrow \\ y+6 = 0 & y-6 = 0 \\ \hline y = -6 & \text{or } y = 6 \end{array} \end{array}$$

b.
$$\begin{array}{r} 2y^2 - \cancel{72} = 0 \\ \hline 2y^2 = 72 \\ \cancel{2}y^2 = \frac{72}{2} \\ y^2 = 36 \\ \sqrt{y^2} = \pm\sqrt{36} \\ y = \pm 6 \end{array}$$

- _____ 2. Solve the following by FACTORING and using the ZERO PRODUCT PROPERTY.

$x^2 + 6x - 40 = 0$

- | | |
|-----------------|-----------------|
| a. $x = 10, -4$ | c. $x = -10, 4$ |
| b. $x = -8, 5$ | d. $x = -5, 8$ |

- _____ 3. Find the solutions of the following quadratic:

$$2x^2 - 7x - 4 = 0$$

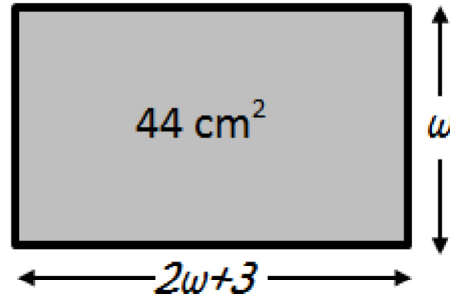
a. $x = \frac{1}{2}, -2$

c. $x = -\frac{1}{4}, 2$

b. $x = \frac{1}{4}, -4$

d. $x = -\frac{1}{2}, 4$

- _____ 4. The length of a rectangle is 3 cm more than twice the width. If the area of the rectangle is 44 cm^2 , what is the **width** of the rectangle?



- a. 2 cm
b. 4 cm

- c. 11 cm
d. 22 cm

Completion

Complete each statement.

5. Solve the following by FACTORING and using the ZERO PRODUCT PROPERTY:

$$x^2 - 12x + 20 = 0$$

In the blank list only the **larger** of the 2 solutions (just the number only).

6. Solve the following by FACTORING and using the ZERO PRODUCT PROPERTY:

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

In the blank list only the **larger** of the 2 solutions (just the number only).

7. Solve the following by FACTORING and using the ZERO PRODUCT PROPERTY:

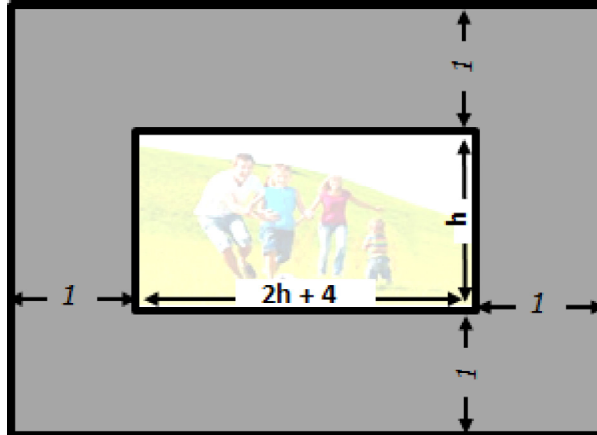
$$3x^2 - 7x - 6 = 0$$

In the blank list only the **larger** of the 2 solutions (just the number only).

Name: _____

ID: A

8. A picture frame goes around a picture such that it has a 1 inch thickness as shown below. The width of the picture is 4 inches more than twice the height.



The area of the frame and picture together is 60 square inches. Determine the height in inches of the picture. (Just put the **number only** in the blank)