

## Class 10 Mathematics - Quadratic Equations

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Medium Worksheet 3

#### Questions

1. The product of two consecutive positive integers is 240. Form a quadratic equation.
2. The area of a rectangle is  $120 \text{ m}^2$ . Its length is 2 m more than its breadth. Form a quadratic equation.
3. The product of two numbers is 72 and one number is 2 more than the other. Form a quadratic equation.
4. A square has area  $196 \text{ cm}^2$ . Form a quadratic equation to determine its side.
5. Why are many real-life situations represented by quadratic equations?
6. Identify the variable in Question 2.

#### Answer Key

1.

Let smaller integer =  $x$

$$x(x + 1) = 240$$

$$x^2 + x - 240 = 0$$

2.

Let breadth =  $x$

Length =  $x + 2$

$$x(x + 2) = 120$$

$$x^2 + 2x - 120 = 0$$

3.

Let smaller number =  $x$

$$x(x + 2) = 72$$

$$x^2 + 2x - 72 = 0$$

4.

Let side =  $x$

$$x^2 = 196$$

$$x^2 - 196 = 0$$

5. Because many area, number and age problems involve squared terms.

6. Breadth