

Lesson Notes 7.1

NAME _____

Module 7 Ratio, Proportion, and Percent
Lesson 1 Square Roots

Lesson Objectives

- Use models to differentiate between perfect squares up to 100 and other numbers.
- Recognize and identify perfect squares and their square roots.
- Represent and solve problem situations that can be modeled by and solved by using the concept of square roots for perfect squares.

Subtopic 1 Number Models

_____ numbers can be modeled with an array that forms a square.

1 Is 75 a square number?

2 Is 49 a square number?

3 Is 100 a square number?

★ 4 Is 60 a square number?

Subtopic 2 Perfect Squares and Their Square Roots

The product of an integer and _____ is a perfect square.

A square number can only _____ with digits 0, 1, 4, 5, 6, or 9.

The square root of a number is an integer that when _____ by itself equals the given number.

The symbol $\sqrt{\quad}$ indicates a square _____.

Evaluate.

★ 5 $\sqrt{121}$

★ 6 $\sqrt{400}$

★ 7 $9^2 + \sqrt{16}$

★ 8 $8^2 + \sqrt{36}$

Subtopic 3 Problem Solving Using Squares and Square Roots

To find the area of a square, square the length of a _____. $A = s^2$

To find the _____ of a side of a square, take the square root of the area. $s = \sqrt{A}$

★ 9 A checkerboard has 32 red squares and 32 black squares. How many squares long is each side of the checkerboard?