Mathematics 9
Unit 1: Square Roots and Surface Area

Text: Math Makes Sense 9   **Chapter 1**

By the end of this unit, it is expected that students will:

Outcomes	Pages in textbook
1. Determine the square root of positive rational numbers that are perfect squares. < Determine whether or not a given rational number is a square number and explain the reasoning. < Determine the square root of a given rational number that is a perfect square. < Identify the error made in a given calculation of a square root < Determine a positive rational number given the square root of that positive rational number.	< Lesson 1.1 Pages 6 - 13
2. Determine an approximate square root of positive rational numbers that are non-perfect squares. < Estimate the square root of a given rational number that is not a perfect square by using the roots of perfect square benchmarks < Determine an approximate square root of a given rational number that is not a perfect square using technology. < Explain why the square root of a given rational number shown on a calculator may be an approximation. < Identify a number with a square root that is between two given numbers.	< Lesson 1.2 Page 14 – 20
3. Determine the surface area of composite 3-D objects to solve problems. (Right cylinders and right rectangular and triangular prisms). < Determine the overlap in a given concrete composite 3-D object and explain its effect on finding surface area. < Determine the surface are of a given concrete composite 3-D object. < Solve a given problem involving surface area.	< Lesson 1.3 Page 25 - 32 < Lesson 1.4 Pages 33 - 43
Review Exercises: < Mid-Unit Review < Unit Review < Practice Test	< Page 21 < Pages 44 - 47 < Page 48