



## What to know for the Chapter 9 Test

### Definitions

- Pythagorean Triples (you need to know 5 families!)
- Prism parts: faces, edges, diagonals
- Pyramid parts: base, vertex, altitude, slant height
- Cube
- Sine, Cosine, Tangent (remember SOHCAHTOA)

### Theorems

- Altitude-on-Hypotenuse Theorems (there are three relationships to know here!)
- The Pythagorean Theorem and its converse
- The Distance Formula
- Isosceles Right Triangle Theorem
- 30-60 Right Triangle Theorem

### Types of Problems

- Simplifying square roots (including reducing, adding, subtracting, multiplying, and dividing)
- Altitude-on-Hypotenuse problems (finding side/altitude lengths and/or perimeters)
- Classifying triangles (acute, right, obtuse and scalene, isosceles, equilateral)
- Pythagorean Theorem problems (finding side lengths/perimeters/etc.)
- Solving for lengths using the Distance Formula
- Using Pythagorean Triples to solve right triangle problems
- Using special right triangles to solve related problems
- Solving problems involving right triangles in prisms and pyramids
- Determining the trigonometric ratios (Sine, Cosine, and Tangent) based on the side lengths of right triangles
- Using the inverse trigonometric function keys on a calculator (or reading from the trig table) to determine angle measurements of a triangle given side lengths