Geometry Chapter 8 Study Guide

1. What is the Pythagorean Theorem? When do we use the Pythagorean Theorem? In the Pythagorean Theorem, what does the letter **c** always refer to? Draw an example of how you would use the Pythagorean Theorem.

2. How do we tell if a triangle is an obtuse triangle? How do we tell if a triangle is an acute triangle? How do we tell if a triangle is a right triangle? Show an example of each.

3. Draw and label a 45-45-90 triangle. What are the three equations that can be used in a 45-45-90 triangle?

4. Draw and label a 30-60-90 triangle. How do we find the short side? What are the four equations that can be used in a 30-60-90 triangle?

5. What is the ratio for sine? (Hint: SOH) Draw an example of a triangle that would use sine to find the solution. When do we use sin^{-1} instead of sine?

6. What is the ratio for cosine? (Hint: CAH) Draw an example of a triangle that would use cosine to find the solution. When do we use cos^{-1} instead of cosine?

7. What is the ratio for tangent? (Hint: TOA) Draw an example of a triangle that would use tangent to find the solution. When do we use tan^{-1} instead of tangent?

8. What is an angle of elevation? What is an angle of depression? What can we infer about the measure of the angle of elevation and the angle of depression?

9. How do we describe a vector as an ordered pair? Draw an example of the process for solving this type of problem.

10. How do we use compass directions to describe the direction of a vector? Draw an example of this process. Be sure to properly label your directions.

11. How do we solve for the sum of vectors? Provide an example of this process.