## MATH 302 Review for Test #3 Sections 6.1-6.5, 7.1-7.4, 8.1-8.3, 10.1, 11.1

- 1. Be able to apply the properties of proportions in problems and proofs (Section 6.1)
- 2. Be able to use the AA, SAS, and SSS Similarity Postulate and Theorems to determine if two triangles are similar (Sections 6.2 & 6.3)
- 3. Be able to apply the theorems related to similar triangles to find the measures of missing sides of triangles (Sections 6.2 & 6.3)
- 4. Be able to prove the Pythagorean Theorem (Class notes from Section 6.3)
- 5. Be able to complete a proof involving similar triangles (Sections 6.2 & 6.3)
- 6. Be able to use trigonometric ratios to find missing sides of a right triangle (Sections 6.4 & 6.5)
- 7. Be able to apply the theorems related to circles to find the measures of missing angles, arcs, chords, tangents, and secants (Sections 7.1-7.4)
- 8. Be able to complete a proof involving circles (Sections 7.1-7.4, 8.2-8.3)
- 9. Be able to apply the Triangle Inequality Postulate to determine if given measurements could be the lengths of sides of a triangle (Section 8.2)
- 10. Be able to compare the length of sides and angles in a triangle (Section 8.2)
- 11. Be able to determine if a triangle is a right triangle, obtuse triangle, or acute triangle (Class notes from Section 8.2)
- 12. Be able to prove that an exterior angle of a triangle is greater than either nonadjacent interior angle (Section 8.1)
- 13. Be able to circumscribe a circle about and inscribe a circle in a regular polygon (Section 10.1)
- 14. Be able to use construction techniques to locate the center of a circle (Section 7.2)
- 15. Be able to write the converse, inverse, contrapositive, and biconditional for a given conditional statement and determine the truth value of each (Section 11.1)