

MATH 302

Review for Test #2

Sections 3.1-3.5, 4.1-4.3, 5.1-5.5, 10.2

1. Be able to state the ways to prove that two lines are parallel (*Section 3.1*)
2. Be able to complete proofs involving parallel lines (*Sections 3.1 & 3.2*)
3. Be able to prove the Triangle Sum Theorem (*Section 3.3*)
4. Be able to use the Triangle Sum Theorem to find angles in a triangle (*Section 3.3*)
5. Be able to find the sum of the interior angles of a polygon (*Section 3.4*)
6. Be able to find the sum of the exterior angles of a polygon (*Section 3.4*)
7. Be able to prove the contrapositive of the Alternate Interior Angle Theorem using Indirect Proof (*Section 3.5*)
8. Be able to state the ways to prove that a quadrilateral is a parallelogram (*Section 4.1*)
9. Be able to prove that a quadrilateral is a parallelogram (*Section 4.1*)
10. Be able to prove that a parallelogram is either a rectangle, rhombus, or square (*Section 4.2*)
11. Be able to use the theorem about the line joining the midpoints of two sides of a triangle to solve problems (*Section 4.2*)
12. Be able to use the properties of trapezoids to solve problems (*Section 4.3*)
13. Be able to use the Pythagorean Theorem to find the length of a side of a right triangle (*Section 5.3*)
14. Be able to use the converse of the Pythagorean Theorem to determine if a triangle is a right triangle (*Section 5.3*)
15. Be able to prove the converse of the Pythagorean Theorem (*Section 5.3*)
16. Be able to use the properties of 30-60 and 45-45 right triangles to find lengths of sides of special right triangles (*Section 5.4*)
17. Be able to find the area, surface area, and volume of geometric shapes (*Sections 5.1, 5.2, 5.5, & 10.2*)