

# Chapter Three Test

1. Identify angles given two lines and a transversal
  - a. alt. int. angles
  - b. alt. ext. angles
  - c. s-s int angles
  - d. s-s ext angles
  - e. corresponding angles
  - f. vertical angles.
2. Properties of Parallel lines--
  - a) If parallel lines alt. int. angles congruent
  - b) If parallel lines alt. ext. angles congruent
  - c) If parallel lines s-s int angles supplementary
  - d) If parallel lines s-s ext angles supplementary
  - e) If parallel lines corresponding angles congruent
  - f) If a transversal is perpendicular to one of two parallel lines then it is perpendicular
3. Ways to prove lines parallel
  - a) Show that a pair of corresponding angles congruent
  - b) Show that a pair of alt. int. angles are congruent
  - c) Show that a pair of alt. ext. angles are congruent
  - d) Show that a pair of s-s int. angles are supplementary
  - e) Show that a pair of s-s ext. angles are supplementary
  - f) In a plan show both lines perpendicular to a third line
  - g) Show both lines parallel to a third line

4. Classifying triangles--Sides and angles
  - a) acute triangles
  - b) obtuse triangles
  - c) right triangles
  - d) equiangular triangles
  - e) scalene triangles
  - f) isosceles triangles
  - g) equilateral triangles
5. Sum of three angles of a triangle equals 180
6. exterior angles
7. remote interior angles
8. ext. angle = the sum of the two remote int. angles
9. Polygons -- naming polygons
  - a) convex polygon
  - b) concave polygon
10. Regular polygon
11. sum of interior angles of a polygon --  $(n - 2)(180)$
12. measure of each int. angle of a regular polygon--  $\frac{(n - 2)180}{n}$
13. sum of exterior angles of a polygon -- 360
14. measure of each ext. angle of a regular polygon --  $\frac{360}{n}$

15. Graphing linear equations --  $y - y_1 = m(x - x_1)$  and then write in slope-intercept form-- $y = mx + b$

- a) point and slope
- b) two points
- c) horizontal lines ( $y = y\text{-coord}$ )
- d) vertical lines ( $x = x\text{-coord}$ )
- e) parallel to an equation through a point (parallel lines slopes are equal)
- f) perpendicular to an equation through a point (perpendicular lines slopes are opposite reciprocals)

16. two proofs