Name: _____ Period: _____

Geometry Study Guide Chapter 3 Parallel & Perpendicular Lines

3-1 Lines & Angles

1. What are skew lines? Can planes be skew? Can a line and a plane be skew?
2. Can you draw 2 lines and a transversal? Can you identify the 4 different angle pairs?
3. Do you understand Problems 1, 2, and 3?
3. Do you understand how to do these problems? p. 143; #1-8, 23, 30-35

3-2 Properties of Parallel Lines

1. If 2 lines are parallel, what is now true about the different angle pairs?
2. Which angle pairs are congruent? Which angle pairs are supplementary?
3. When a problem says "justify," what does that mean? What do you have to include in your answer?
4. With an algebra problem, can you explain to a friend when to set 2 angles equal to each other AND when to add them together and set them equal to 180?
5. Do you understand Problems 1, 2, 3, & 4?
6. Do you understand how to do these problems? p. 152; #1-4, 7, 10, 14, 15, 17, 29

The first test covers this material.

3-3 Proving Lines Parallel

1. If a pair of alternate interior angles are congruent, what does that prove about the 2 lines?
2. Do you understand Problems 1, 3, & 4?
3. Do you understand how to do these problems? p. 160; 1, 2, 6, 8, 10, 15, 16, 17-26

3-4 Parallel & Perpendicular Lines

1. Can you describe how multiple parallel and perpendicular lines relate to each other?
2. Do you understand Problems 1, & 2?
3. Do you understand how to do these problems? p. 167; #1-3, 6, 11-15, 27, 29

3-5 Parallel Lines & Triangles

1. How many degrees are on the interior of a triangle? You know 2 angles; how do you find the third?
2. What is an exterior angle? Draw one. What are remote interior angles? Draw them. How do they relate?
3. Do you understand Problems 1, 2, & 3?
4. Do you understand how to do these problems? p. 175; #1, 4, 5, 8, 10, 12, 13, 20

3-6 Constructing Parallel & Perpendicular Lines

1. From memory, can you construct a parallel line at a point not on the line? A perpendicular at a point on a line? A perpendicular through a point not on the line?
2. Do you understand Problems 1, 2, 3, & 4?
3. Do you understand how to do these problems? p. 186; #1-4, 7, 12, 15, 16, 29, 40

The second test covers the entire chapter.

3-7 Equations of Lines in the Coordinate Plane

1. Are you able to calculate slope PERFECTLY, EVERY SINGLE TIME? Can you apply VUX HOY?
2. What is the slope-intercept form of a linear equation? What is the point-slope form?
3. Given equations using both forms, can you graph a line? AND Given a graph, can you create an equation?
4. Describe how to use 2 points to create the equation of the line.
5. Do you understand Problems 1, 2, 3, 4, & 5?
6. Do you understand how to do these problems? p. 193; #1-7, 17, 21, 27, 35, 37, 44, 27

3-8 Slopes of Parallel & Perpendicular Line

1. What is true of slope of parallel lines? Perpendicular lines? What are Opposite Reciprocals? What is the product of the slopes of 2 perpendicular lines?
2. How do you take 2 linear equations and determine if the slopes are parallel, perpendicular, or neither?
3. Given a line (graph or equation), how do you find the equation of a parallel line? Perpendicular line?
4. Do you understand Problems 1, 2, 3, & 4?
5. Do you understand how to do these problems? p. 201; #1-5, 7, 8, 11, 15, 17, 21, 23, 25, 38

REVIEW: Chapter Review p. 206-210; Vocabulary; Notes; Homework; Classwork; Quizzes