Mrs. Anderson **Informal Geometry** **Unit 2**

Coordinate Geometry

Name: _____ Due Date: _____ Your Points: _____ / 200

Assignments marked with ** are required.

Day 1: The Coordinate Plane (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Verbal quiz over coordinate plane (5 points)
_____ 3. Poster with all the parts of the coordinate plane labeled (5 points)
_____ 4. Write a good paragraph explaining how the coordinate plane helps you locate a point. (5 points)
_____ 5. Complete problem set [p. 878 (1-12 all)] (10 points)

Day 2: The Midpoint Formula (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Complete investigation sheet "Where's the midpoint?" (5 points)
_____ 3. Verbal quiz on midpoints—no calculator (5 points)
_____ 4. Write a good paragraph that compares/contrasts the two methods of finding the coordinates of an endpoint when you are given the coordinates of the other endpoint and the midpoint (5 points)
_____ 5. Complete problem set [pp. 19-20 (17-22 all, 25-28 all)] (10 points)

Day 3: The Distance Formula (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Complete investigation sheet "How far from point A to point B?" (5 points)
_____ 3. Write 3 problems that can be solved using the distance formula. At least 1 of your problems must be a word problem. Then solve the problems. (5 points)
_____ 4. Verbal quiz over distance formula (5 points)
_____ 5. Complete problem set [pp. 20-21 (31-34 all, 43, 50, 51)] (10 points)

Day 4: The Slope Formula (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Verbal quiz on slopes (5 points)
_____ 3. Poster illustrating the different types of slope and slope formula (5 points)
_____ 4. Write a good paragraph describing 3 real-life applications of slope. (5 points)
_____ 5. Complete worksheet "Slope". (10 points)

Day 5: Writing Linear Equations (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Write a good paragraph comparing and contrasting point-slope form and slope-intercept form. (5 points)
_____ 3. Verbal quiz/explanation over linear equations (5 points)
_____ 4. Answer the following questions in complete sentences: (5 points)
   a. How do you write the equation of a horizontal line? Why?
   b. How do you write the equation of a vertical line? Why?
   c. If you are given the coordinates of a point on the line (0, 5) and its slope is ½ , which method would you use to write an equation of the line? Explain.
_____ 5. Complete problem set [p. 184 (4-22 even)] (10 points)

Day 6: Graphing Linear Equations (15 points)

_____ 1. **Notes on the lesson (5 points)
_____ 2. Poster with the steps to graphing a linear equation and example (5 points)
_____ 3. Complete "Business Graphs" worksheet (5 points)
_____ 4. Complete worksheet 3.5 "Linear Equations" (10 points)
_____ 5. Complete problem set [p.185 (36-45 all)] (10 points)

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Day 7: Parallel Lines in the Coordinate Plane (15 points)
_____ 1. **Notes on the lesson (5 points)
_____ 2. Verbal quiz (you may want a sheet of scratch paper) (5 points)
_____ 3.Complete 3 of the 6 problems on "Parallel Lines" Worksheet. Write a paragraph explaining how you found your solution for any 1 of your 3 problems. (5 points)
_____ 4. If one of your classmates missed the day we went over this lesson, what are the main steps that he/she needs to understand? Write a detailed summary of the lesson. You may use an example, but be sure your explanation is written out.
_____ 5. Complete problem set [p. 185 (23-29 all, 46-48 all)

Day 8: Perpendicular Lines in the Coordinate Plane (15 points)
_____ 1. **Notes on the lesson (5 points)
_____ 2. Verbal quiz (you may need a sheet of scratch paper) (5 points)
_____ 3. Complete 3 of the 6 problems on "Perpendicular Lines" Worksheet. Write a paragraph explaining how you found your solution for any 1 of your 3 problems. (5 points)
_____ 4. Write a good paragraph explaining how the steps to writing an equation of a line parallel to a given line is different from writing an equation of a line perpendicular to a given line.
_____ 5. Complete problem set [p. 185 (30-35 all) p. 197 bottom (4-6 all)]

Day 9 : Computer Day/ Review Day (20 points)
_____ 1. Find 5 other ways that coordinates are used (besides the Cartesian plane). Write a paragraph on each type of coordinate system, explaining what the coordinates represent, what it is used for, and any other interesting facts. (10 points)
_____ 2. Research 4 different proofs for or ways to derive the distance formula. Record the basic idea of each proof at the top of your paper. Then choose the method that makes the most sense to you, and write a good paragraph explaining your selection. (10 points)
_____ 3. At www.classzone.com complete the Animated Math for Section 3.4 "Roller Coasters". Type a 4-6 sentence paragraph explaining what you did and different geometry concepts used. (5 points)
_____ 4. At www.classzone.com complete the Animated Math for Section 3.1 "Identify Lines and Angles". Type a 4-6 sentence paragraph explaining what you did and different geometry concepts used. (5 points)
_____ 5. Write a paragraph on each of the ways to graph a linear equation. Be sure to include any advantages or disadvantages of each method. Then write an additional paragraph on which way you prefer to graph a linear equation and why it is your favorite. (10 points)
_____ 6. Write one page comparing and contrasting parallel and perpendicular lines. You may discuss the definitions as they relate to the general plane, how they look (with a written explanation, not a drawing), different real life examples of each type of lines, and how they are different in the coordinate plane. (10 points)

Day 10: Test Day (60 points)
_____ 1. **Take test over Unit 2. (50 points)
_____ 2. Turn in binder with all notes and assignment records (10 points)
_____ 3. Turn in vocabulary list with complete definitions (10 points)
_____ 4. Write two good paragraphs. The first should give a summary of what you learned (or reviewed) this chapter. The second should be a reflection on what you think of Informal Geometry so far. (Is there anything you really like or dislike about the class? Is there something specific I could do to help you understand things better?)

Grading Scale
A: 184-200 B: 168-183 C:150-167 D: 134-149 F: 0-133