Week 5 Geometry Assignment:

Day 1: p. 87 #1-22
Day 2: pp. 91-92 #1-19
Day 3: p. 96 #1-15
Day 4: p. 96 #16-22, 24, 26-30
Day 5: pp. #100-101 #1-22, 25-30

Notes on Assignment:

Page 87:

Work to show:
     #1-2: Number lines
     #3: There are 13 answers.
     #4-22: Answers only is ok.

#3: A note on rational numbers. Even if it is not written as a/b, if it *can* be written a/b it is a
     rational number.

#4-10: Refer to the properties on page 86.

#15: Do not just make everything positive. The absolute value brackets are grouping
     symbols. Do what is inside first.

#17-22: If you can think of just one counterexample, it makes the statement false.

#20: If you read the "-" as "the opposite of" you will not get the signs mixed up.

Pages 91-92:

Work to show:
     #1-6: One number line for all of these, but label your points.
     #7-10: Answers only
     #11-16: Answers only
     #17-19: Show explanation with calculations.

#1-6: Estimate these positions if the numbers are not integers and draw them all on a
     single number line.

#11-16: Subtract the coordinates and then take the absolute value. It doesn't matter what
     order you subtract. For #11, for example, you can do |0-9|=|-9|=9 or |9-0|=|9|=9.

#17-19: Use the definition of between on page 91 to show these.

Page 96:

Work to show:
    #1-15: Answers only is fine.
    #16-19: Answer as directed.
    #20-22: Answers only
    #24: Write out reason.
    #26-30: Answer as directed.

#1-6: This is the same and finding the distance between the 2 endpoints, like you did in
        yesterday's assignment. Since you are given the number line, you can just count
        the units if you want to.

#7-8: Remember that the coordinate is the number associated with a point. You are asked
        to find the coordinate of the midpoint, which means the number associated with the
        midpoint's location on the number line. Midpoint means average, so find the
        average of the coordinates given by the endpoints.

#9: This is asking for the point, which is designated by a capital letter.

#10: Congruent segments have the same length. What other segment on the number line
        has the same length as $\overline{BE}$?

#11-15: If you can think of just one counterexample, it makes the statement false.

#16-19: Draw a picture to help figure these out. The picture will help you know what to add
        or subtract.

#27: Where would you put the end of the ruler if you were to measure segment AB?

Pages 100-101:

Work to show:
    #1-10: Show calculations as needed. Label answers.
    #11-14: Write the equation and solve. Label answers.
    #15-20: Copy the table and fill it in.
    #21-22: Show work
    #25-30: Show work as needed.

#11: If it is a regular quadrilateral, that means it is a square. Then if s represents the
        length of the side, we have the equation 4s = 72. Solve to find s.

#12: Use the same reasoning for this problem as for #11.

#13: Think of this as a word problem. Let x = the length of the side b, since you know the least about that side. How would you represent side a, if it is twice as long as b? After you write down how you would represent a, then use that to represent side c, since c is 2 inches longer than side a.

#14: Let x = one side and write an expression for the other side. Then use the formula for perimeter of a rectangle to find the solution.

#15-20: You can use a calculator for the last column.

#21-25: You can use a calculator for these problems.

#21: In one revolution, the entire edge of the wheel will touch the ground. This represents the circumference.

#26-28: You will find these answers in section 1.5.

#29: Draw these to help figure them out.

#30: Consider trichotomy.