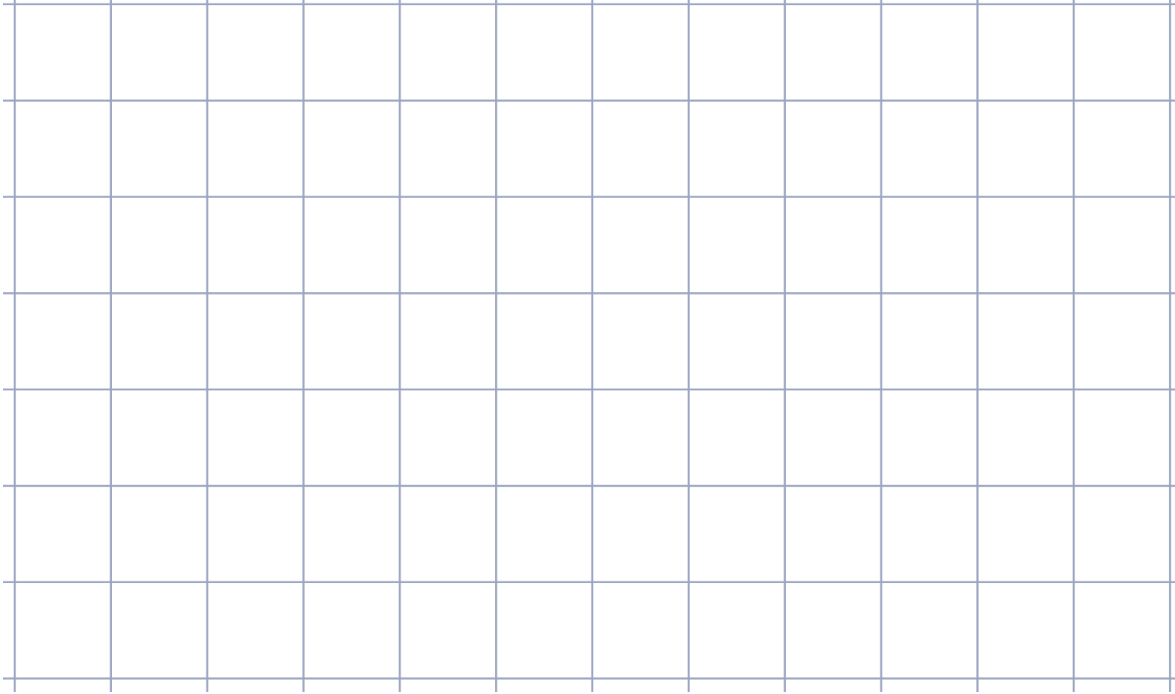Name _____   Date _____

1. Use your ruler to draw a rectangle that measures $3\frac{1}{2}$ by $1\frac{3}{4}$ inches, and find its area.

2. Heather has a rectangular yard. She measures it and finds out it is $16\frac{1}{2}$ feet long by $8\frac{4}{5}$-feet wide.

    a. She wants to know how many square feet of sod she will need to completely cover the yard. Draw the yard, and label the measurements.

    b. How much sod will Heather need to cover the yard?

    c. If each square foot of sod costs 65 cents, how much will she have to pay to cover her yard?

3. A rectangular container that has a length of 20 cm, a width of 15 cm, and a height of 18 cm is filled with water to a depth of 14 cm. When an additional 6.5 liters of water are poured into the container, some water overflows. How many liters of water overflow the container? Use words, pictures, and numbers to explain your answer. (Remember: 1 cm^3 = 1 mL.)

4. Jim says that a $3\frac{1}{2}$ inch by $4\frac{1}{4}$ inch rectangle has a section that is 3 inches × 4 inches and a section that is $\frac{1}{2}$ inch × $\frac{1}{4}$ inch. That means the total area is just the sum of these two smaller areas, or $12\frac{1}{8}$ in^2. Why is Jim incorrect? Use an area model to explain your thinking. Then, give the correct area of the rectangle.

5. Miguel and Jacqui built towers out of craft sticks. Miguel's tower had a 6-inch square base. Jacqui's tower had a 5-inch square base. If Miguel's tower had a volume of 72 cubic inches and Jacqui's had a volume of 100 cubic inches, whose tower was taller? Explain your reasoning.
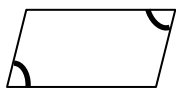
6. Read the statements. Circle True or False. Explain your choice for each using words and/or pictures.

   a. All squares are quadrilaterals.   True   False

   b. All squares are trapezoids.   True   False

   c. Squares are rhombuses, but not parallelograms.   True   False

   d. The opposite angles in a parallelogram have the same measure.   True   False

   e. Because the angles in a square are 90° each, it is not a parallelogram.   True   False

   f. The sum of the angle measures of any rhombus is greater than the sum of the angle measures of any trapezoid.   True   False

   g. The following figure is a parallelogram.   True   False