Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hour:\_\_\_\_\_\_\_

Advanced Area Application Graded Assignment

**Area Applications – CCSS**

**1.** Katie is using the given plan to convert part of her lawn to a xeriscape garden. A newly planted xeriscape uses 17 gallons of water per square foot per year.



(a) Find the area of her garden (round to the nearest hundredth).

(b) How much water will the garden require in one year?

(c) The lawn that Katie is replacing requires 79 gallons of water per square foot per year. How many gallons does this lawn require in one year?

(d) How much water will Katie save by planting the xeriscape garden per year? Round your answers to the nearest hundredth.

**2.** A plastic flying disc is circular and has a circular hole in the middle. If the diameter of the outer edge of the ring is 13 inches and the diameter of the inner edge of the ring is 10 inches, what is the exact area of the plastic ring?

3. You are making a triangular flag with a base of 24 inches and

an area of 360 square inches. How long should the flag be?

4. Dominick and Ramy are painting a stage backdrop for a play. The paint they are using covers 90 square feet per quart. How many quarts of paint should they buy to paint the figure below? They can only buy full quarts, so if they need a fraction of the quart, they must still buy the whole thing. (Round up!)

