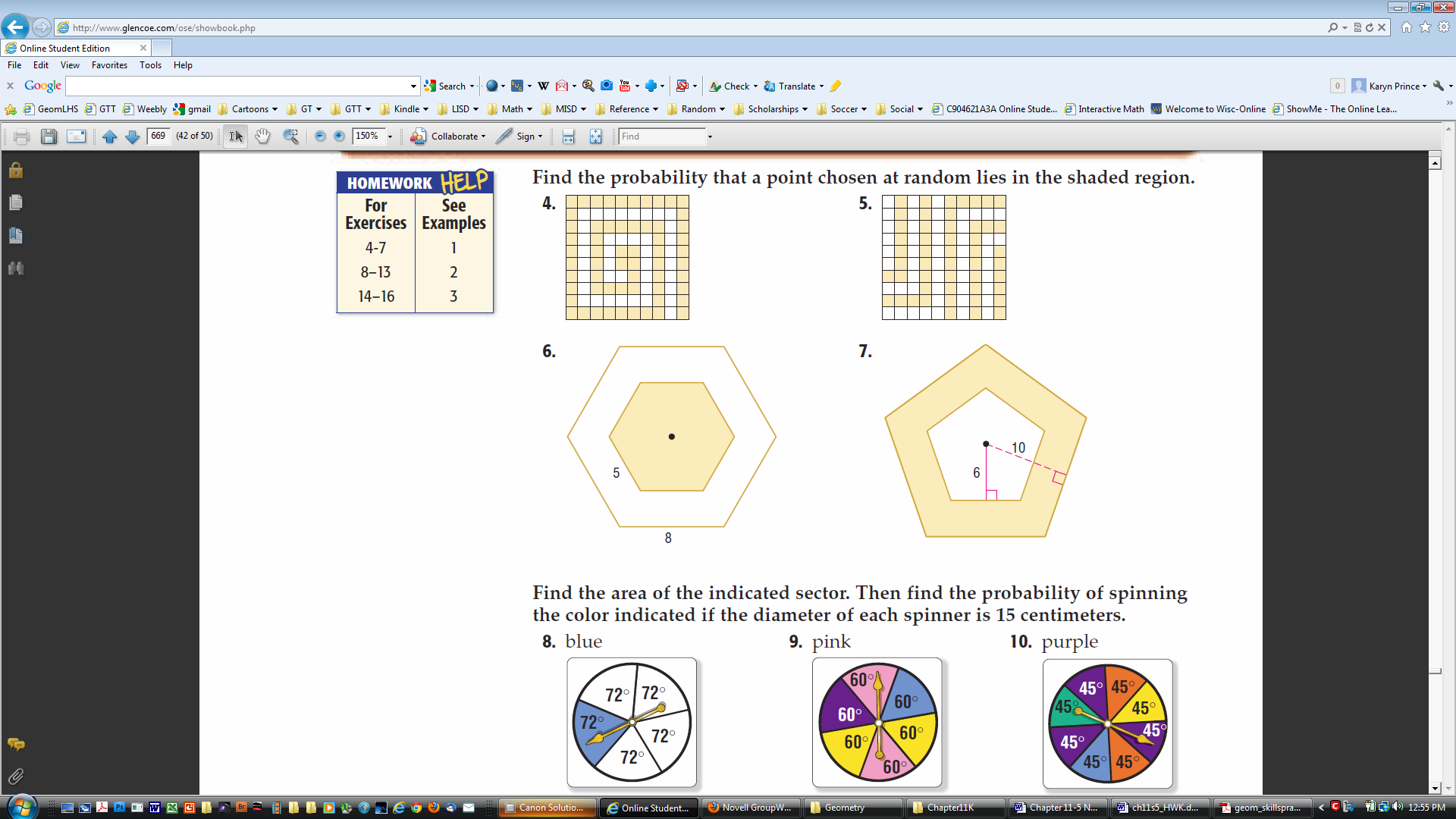
Geometric Probability and Area of Sectors

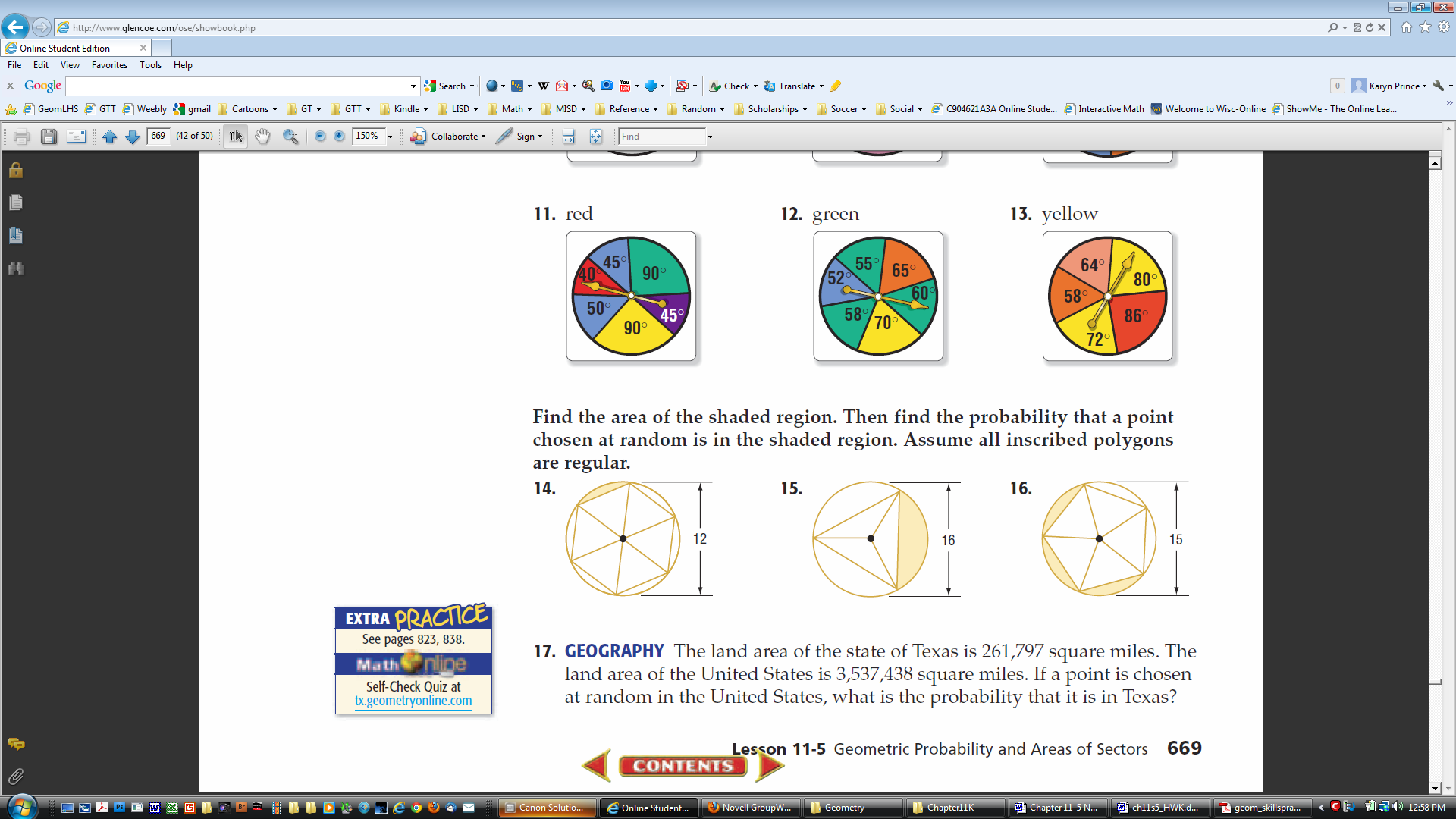


Worksheet

1. Find the probability that a point chosen at random lies in the

shaded region.

Probability = \_\_\_\_\_\_\_\_\_\_

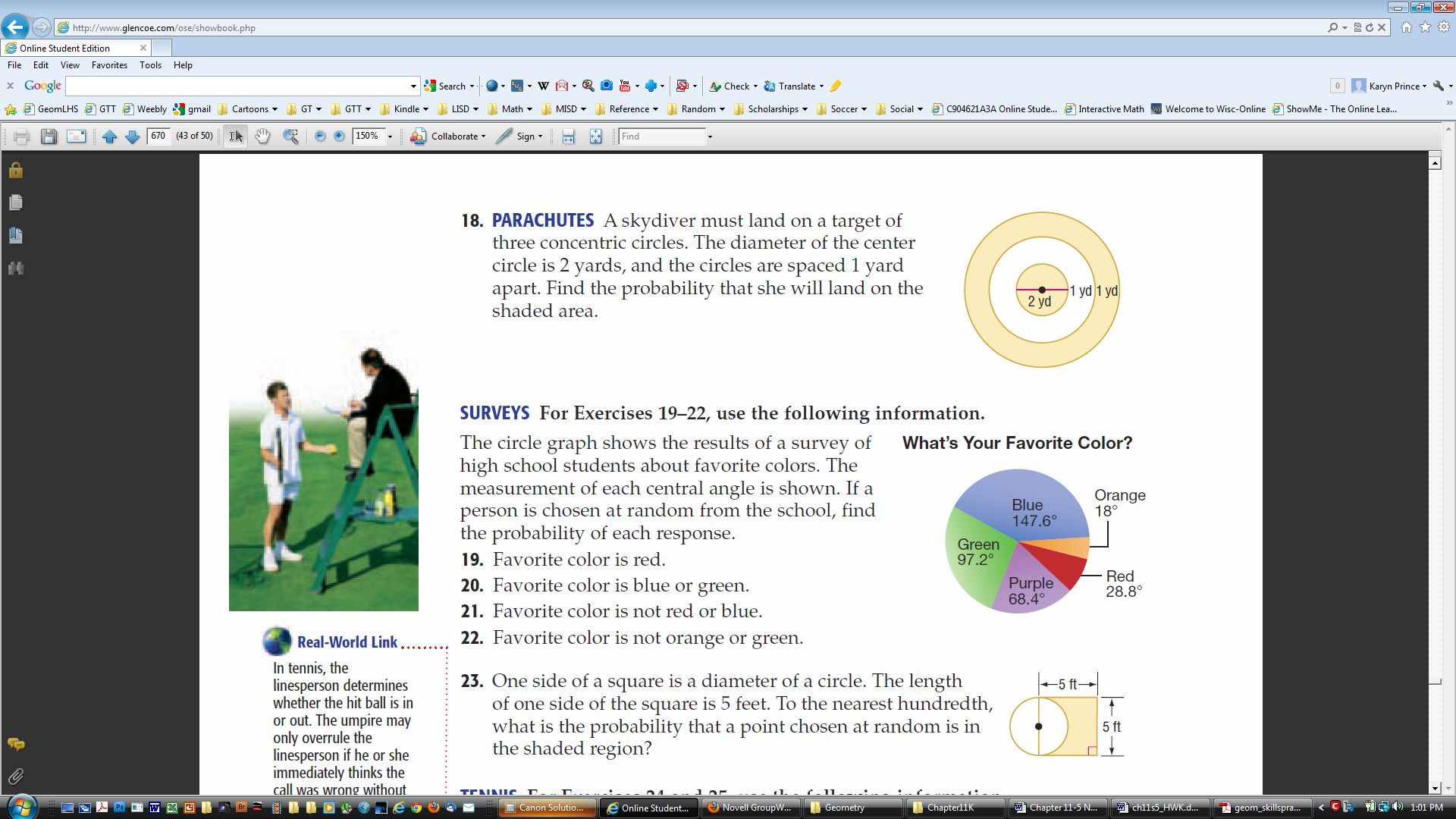


2. Find the area of the shaded region. Then find the probability that a point chosen at random is in the shaded region. Assume all inscribed polygons are regular.

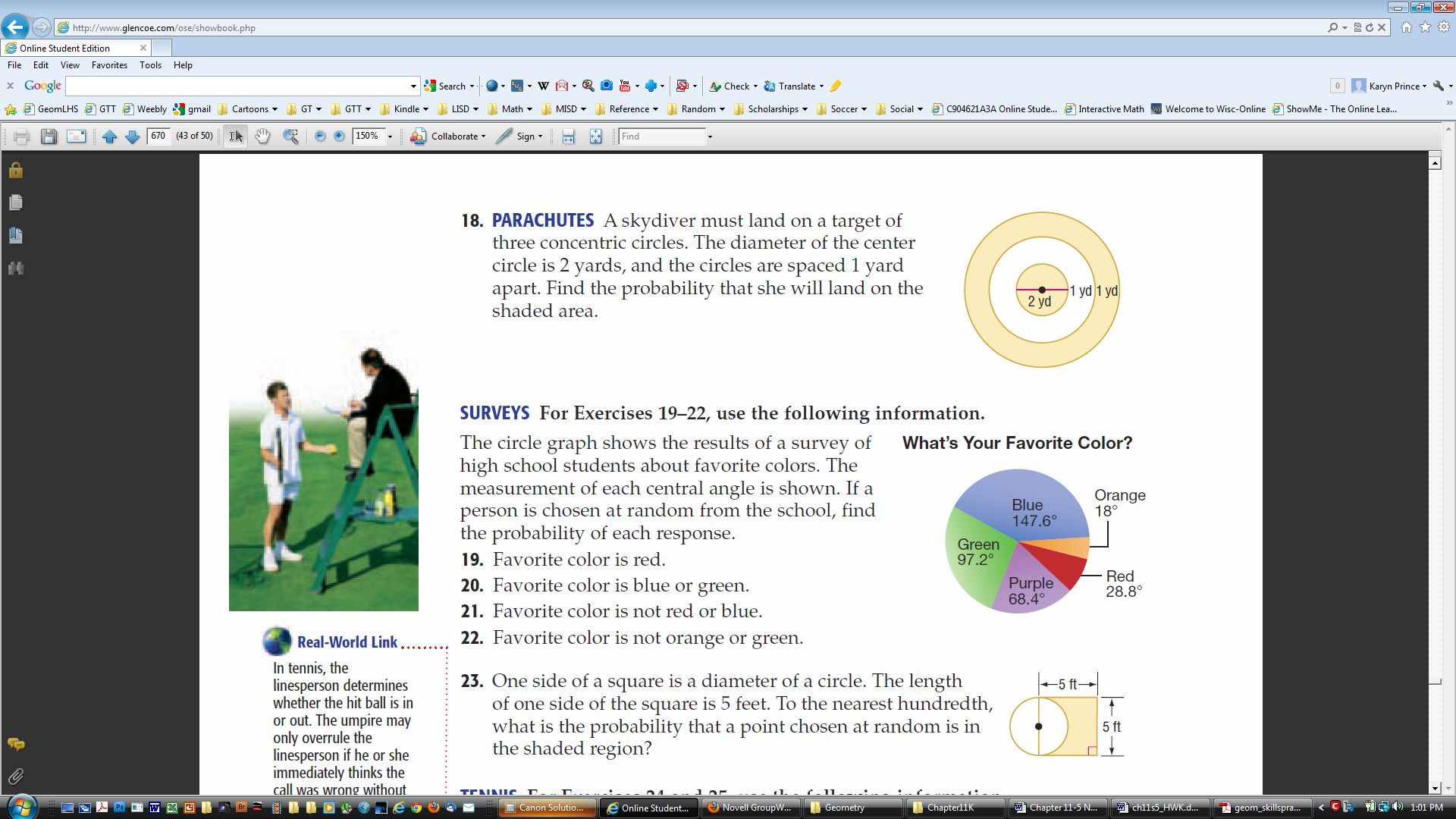
Area = \_\_\_\_\_\_\_\_\_\_\_

Probability = \_\_\_\_\_\_\_\_\_\_\_

3. A skydiver must land on a target of three concentric circles. The diameter of the center circle is 2 yards, and the circles are spaced 1 yard apart. Find the probability that she will land in one of the shaded areas.



Probability = \_\_\_\_\_\_\_\_\_\_



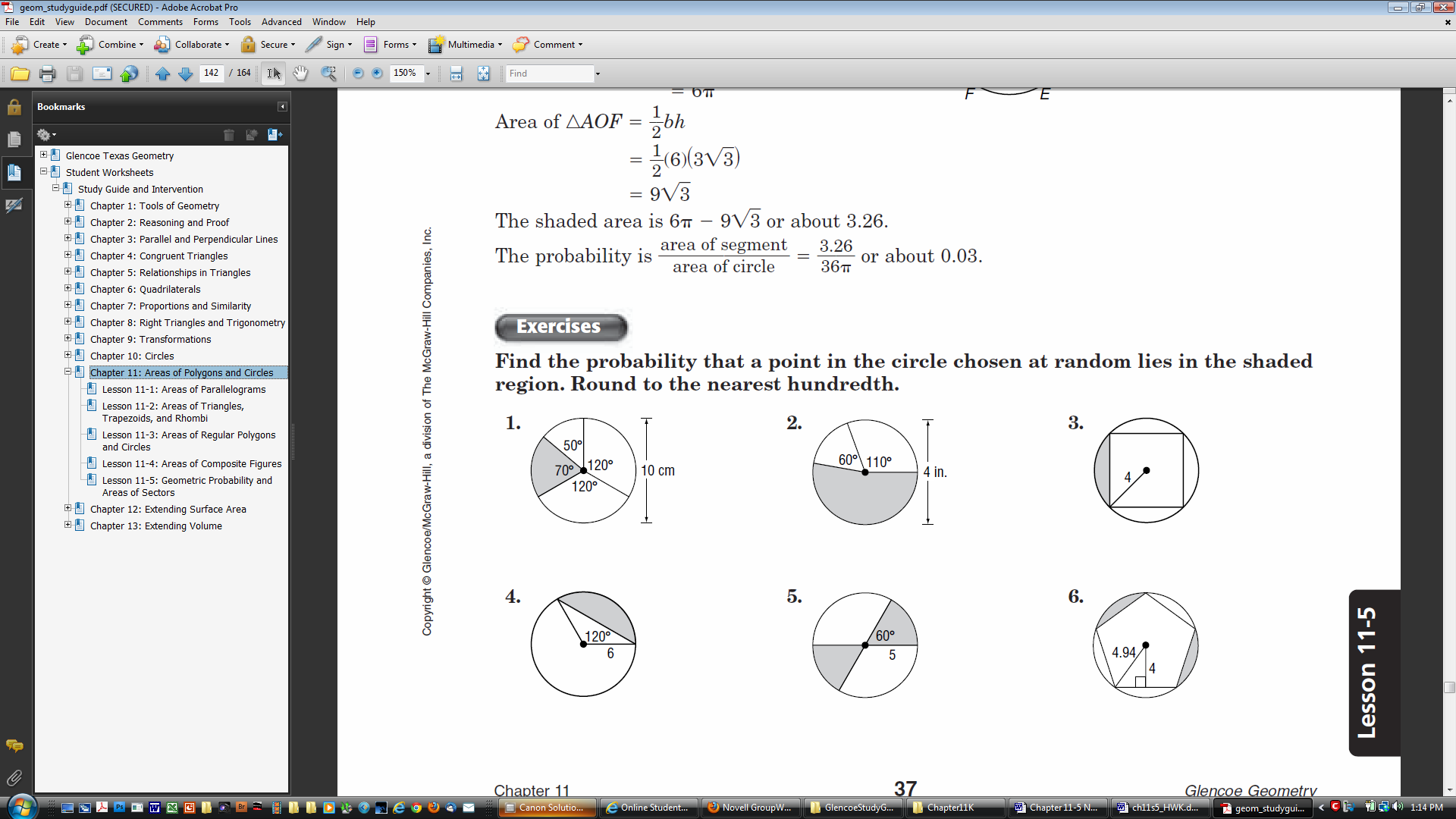
4. The circle graph shows the results of a survey of high school students about favorite colors. The measurement of each central angle is shown. If a person is chosen at random, what is the probability that their favorite color is purple? What is the probability that their favorite color is not blue?

Probability Favorite Color is Purple = \_\_\_\_\_\_\_\_\_\_\_

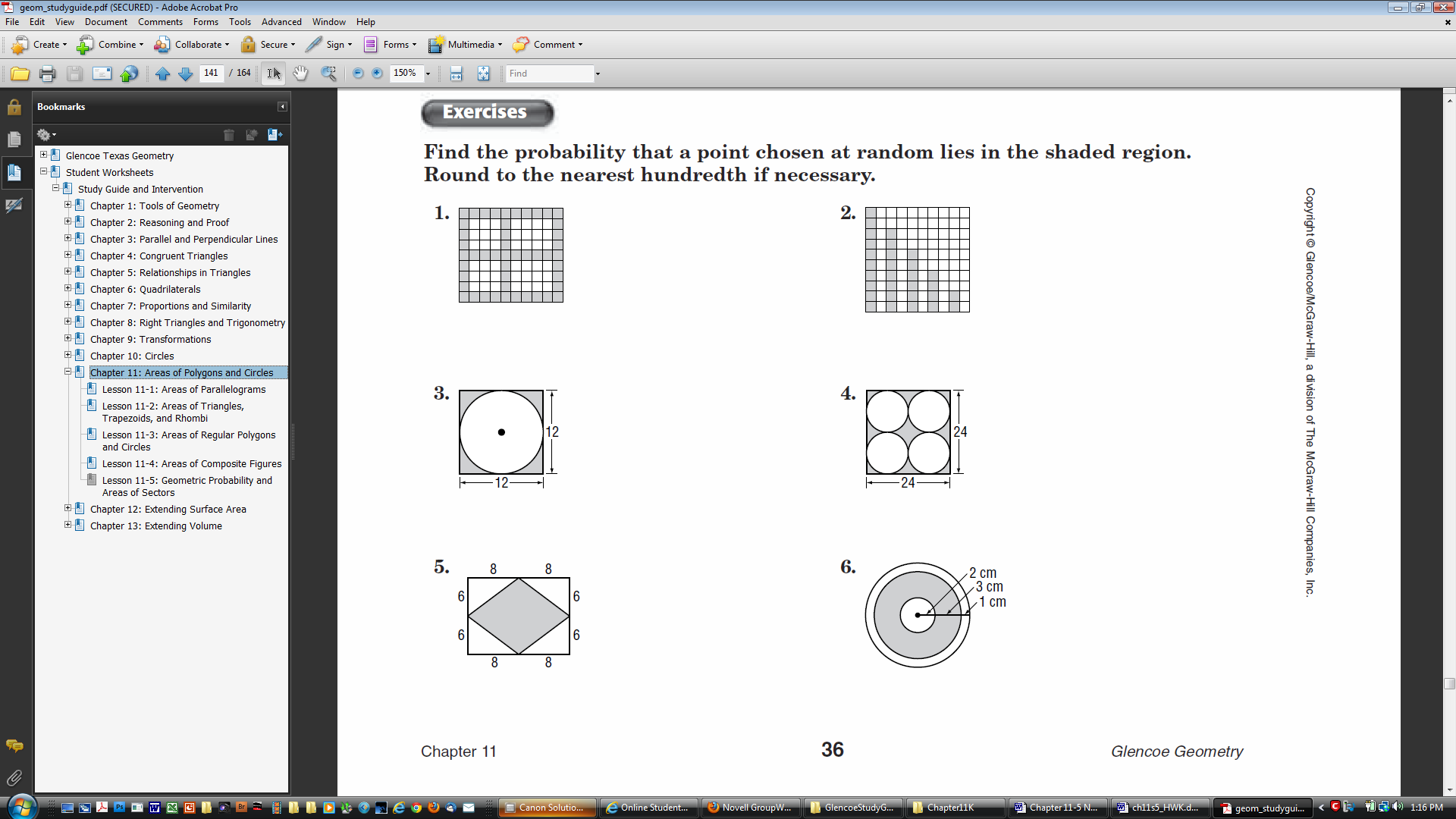
Probability Favorite Color is Not Blue = \_\_\_\_\_\_\_\_\_\_\_

For #5-8, find the area of the shaded region. Then find the probability that a point chosen at random is in the shaded region. Assume all inscribed polygons are regular. Show all work. Round to the nearest tenth if necessary.

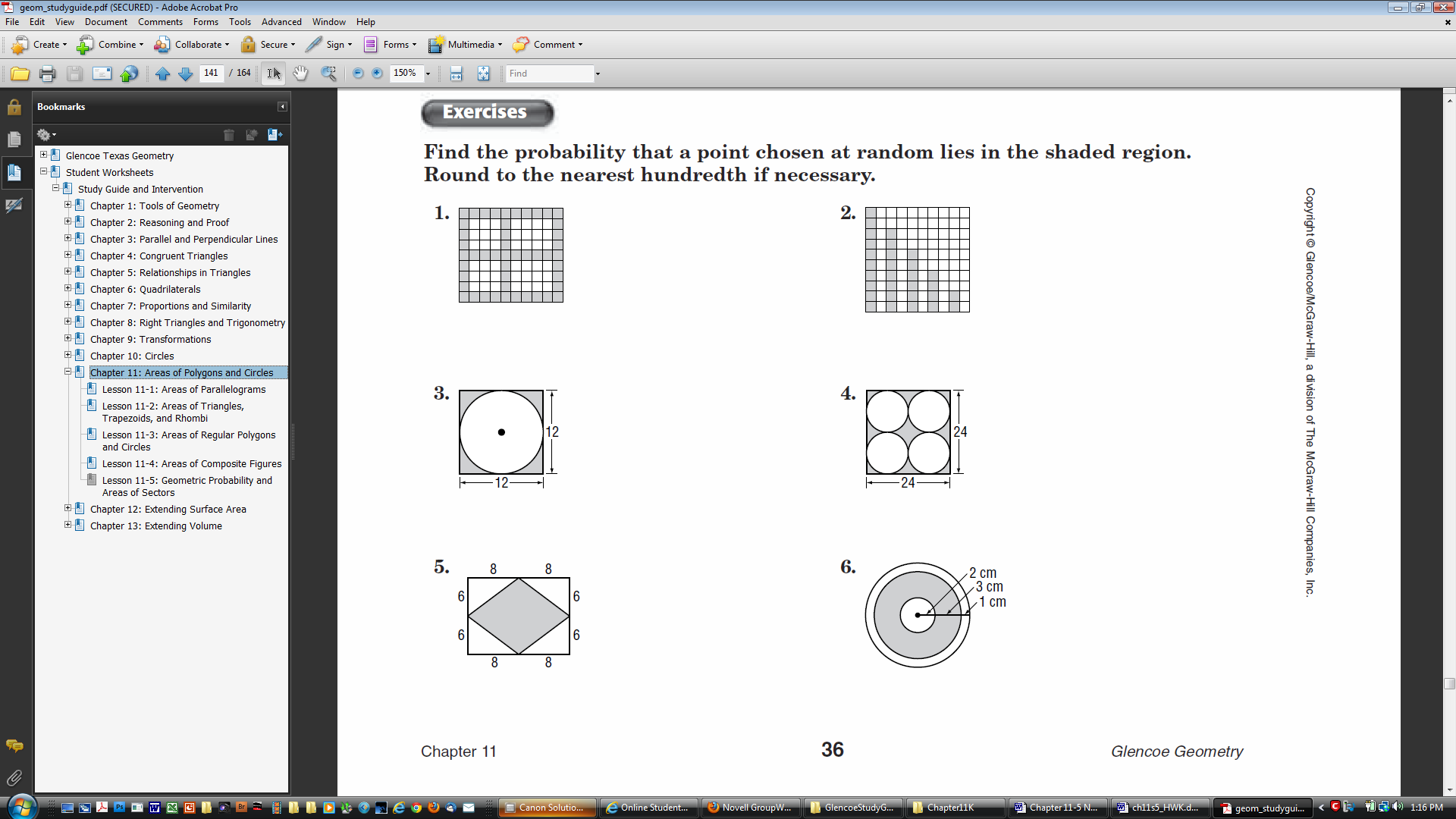
5. Area = \_\_\_\_\_\_\_\_\_\_\_\_\_ Probability = \_\_\_\_\_\_\_\_\_\_\_\_\_



6. Area = \_\_\_\_\_\_\_\_\_\_\_\_\_ Probability = \_\_\_\_\_\_\_\_\_\_\_\_\_



7. Area = \_\_\_\_\_\_\_\_\_\_\_\_\_ Probability = \_\_\_\_\_\_\_\_\_\_\_\_\_



8. Area = \_\_\_\_\_\_\_\_\_\_\_\_\_ Probability = \_\_\_\_\_\_\_\_\_\_\_\_\_

