Geometry

Name _____

7.1 Proportions

Date _____   Hour _____

1. Out of a survey of 1000 households, 460 had at least one dog or cat as a pet. What is the ratio of pet owners to households?

2. In the 2003-2004 school year, Arizona State University had 58,156 students and 2165 full-time faculty members. What was the ratio of the students per faculty member rounded to the nearest person?

3. A replica of *The Thinker* is 10 inches tall. A statue of *The Thinker*, located in front of Grawemeyer Hall at the University of Louisville, is 10 feet tall. What is the ratio of the replica to the statue?

4. The ratio of the measures of the sides of a triangle is 3:4:5. Perimeter is 72 inches. Side lengths?

5. A cable that is 42 feet long is divided into lengths in the ration of 3:4. What are the two lengths?

6. There are about 300,000,000 people in the United States. A recent study showed annual ice cream consumption for the country to be about 1.5 billion gallons. How much is that per person?

7. Illinois population was about 12.8 million people last year. How much ice cream did Illinois eat?

Golden Rectangles Many artists have used golden rectangles in their work. In a golden rectangle, the ratio of the length to the width is about 1.618. This ratio is known as the golden ratio.

8. The aspect ratio (ratio of width to height) of a widescreen television is 16:9. The aspect ratio for older televisions was 4:3. Rewrite these ratios as decimals. How do they compare to the golden ratio?

9. Given: $m\angle 9 = 75$

   Find $m\angle 5$.

   Find $m\angle 4$.