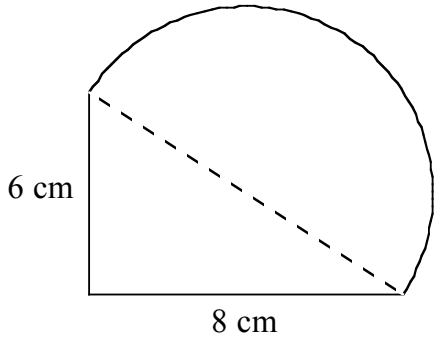
Area and Perimeter Homework **Name _____**
September 19, 2008

1. The right triangle below has a half circle along the hypotenuse. Given that the two short sides of the right triangle are 6 cm and 8 cm, calculate the area and the perimeter of the figure.

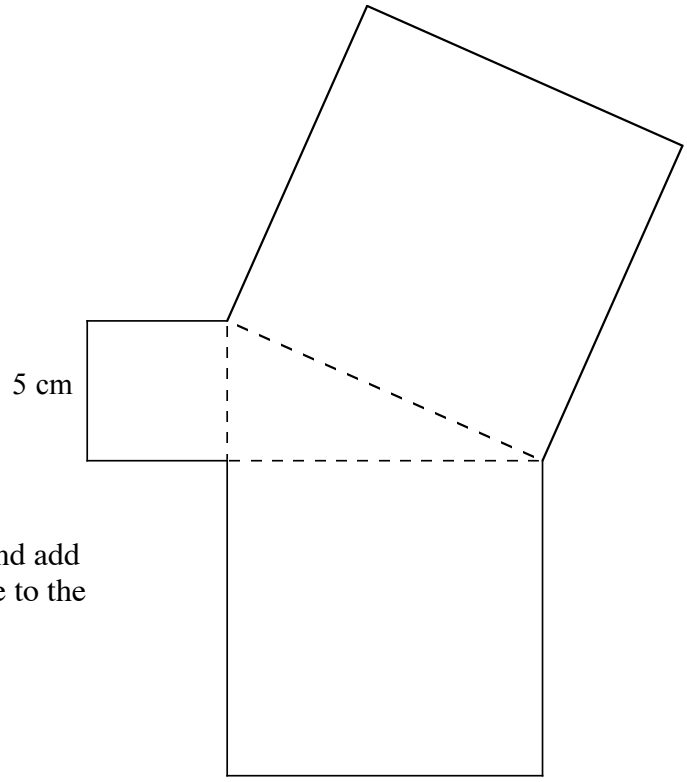


2. The figure below is a right triangle with a square on each side. The area of the triangle is $30 cm^2$.

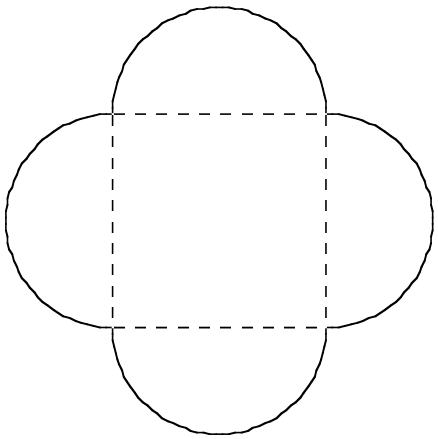
   a. Calculate the perimeter of the triangle.

   b. Calculate the perimeter of the entire figure.

   c. Take the areas of the two smaller squares and add them together. How does this area compare to the area of the large square? Any idea why?



3. The figure below is a square with a half circle along each side. The perimeter of the entire figure is 16π cm.



   a. How long is each of the half-circle "bumps"?

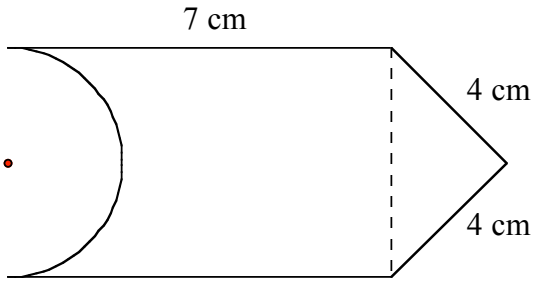
   b. What is the radius of each half-circle "bump"?
   Hint: 2 cm is not the correct answer.

   c. Calculate the area of the entire figure,

This last problem is expected to be a challenge. You may need your calculator to complete this problem.

4. The figure below is a rectangle with a right triangle added to the right end and a half circle cut out of the left end.

   a. Calculate the perimeter of the figure.



   b. Calculate the area of the figure.

   c. If you wanted to draw a vertical line (straight up and down) to divide the area of the figure in half, calculate where should the line be drawn.