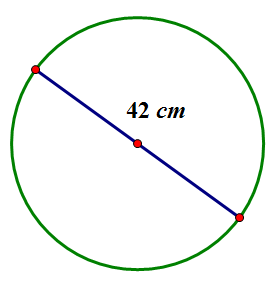
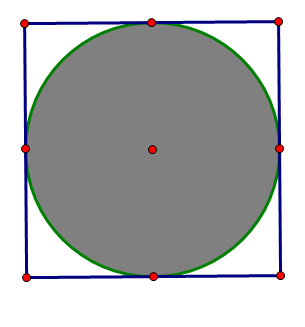
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Due: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_

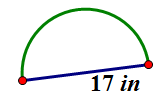
1. Find the circumference.



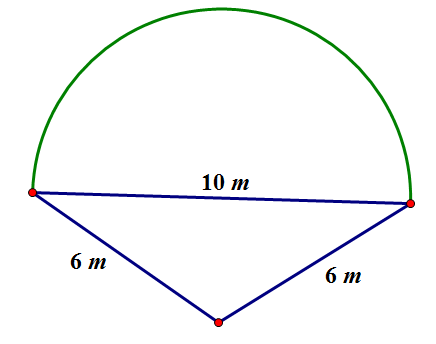
* 1. Give an exact answer in terms of .
  2. Use , and express your answer as a fraction in lowest terms.



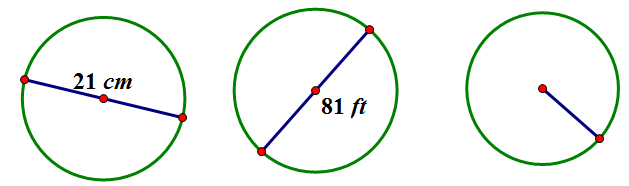
1. The figure shows a circle within a square. Find the circumference and area of the circle. Let .
2. Find the perimeter and the area of the semicircle. Let .



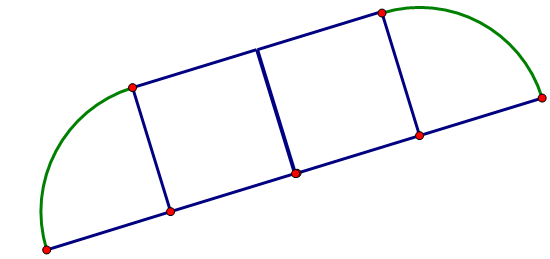
1. Ken’s landscape gardening business makes odd-shaped lawns that include semicircles. Find the length of the edging material needed to border the lawn design shown below. Use for .

****

1. The following circles are not drawn to scale. Find the area of each circle. (Use as an approximation for )



1. A window manufacturer designed a set of windows for the top of a two-story wall. If the window is comprised of squares and quarter circles on each end, and if the length of the span of windows across the bottom is feet, approximately how much glass will be needed to complete the set of windows?



1. Find the area of the shaded region. (Approximate to be .)

