

**MA 202: Quiz 6**  
*Tuesday 02/27/2018*

Name \_\_\_\_\_

Section \_\_\_\_\_

1. (3 points.) Consider the figure below. The circle has a diameter of 8m with marked center. Find the arc length  $L$  and the area of the shaded region. Give exact answers.



2. (3 points.) Suppose you have a (right circular) cylinder of radius 10 cm and height 30 cm. Which will increase the surface area of the cylinder more, doubling the radius to 20 cm or doubling the height to 60 cm? Justify your answer.