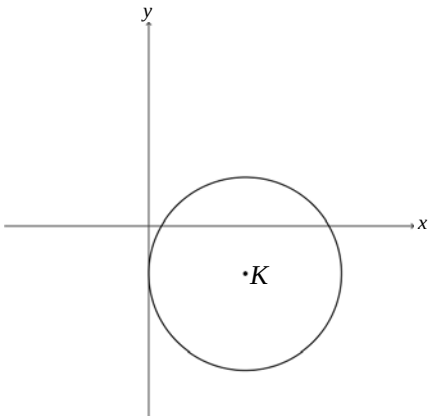
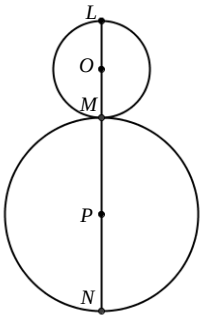
UB SAT 2009
Homework #23
Circles
Due: Thurs, May 21

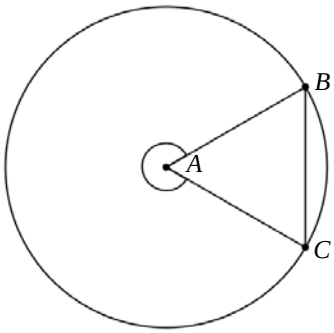


1. Point K is the center of the circle above, and the coordinates of Point K are $(2,-1)$. What is the area of the circle?
   (A) π (B) 2π (C) 4π (D) 6π (E) 8π

2. Circle P has a radius of 7 and Circle R has a diameter of 8. The circumference of Circle P is how much greater than the circumference of Circle R?
   (A) π (B) 6π (C) 8π (D) 16π (E) 33π

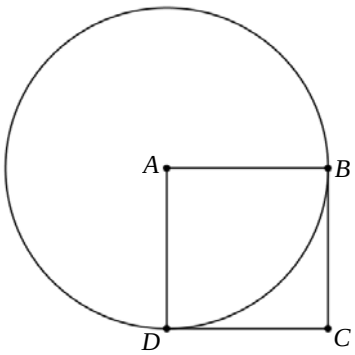


3. In the figure above, LM is $\frac{1}{3}$ of LN. If the radius of the circle with center P is 6, what is the area of the circle with center O?
   (A) 4π
   (B) 9π
   (C) 12π
   (D) 18π
   (E) 36π



4. In the figure above, the circle has center A, and $BC = AB$. What is the degree measure of the marked angle?
   (A) 60°
   (B) 180°
   (C) 270°
   (D) 300°
   (E) 340°

5. What is the greatest number of distinct regions that could be formed by a circle overlapped by a triangle?
   (A) 3 (B) 4 (C) 6 (D) 7 (E) 8



6. Points D and B lie on the circle above with center A. If square $ABCD$ has a an area of 16, what is the length of arc BD?
   (A) 2π (B) 4 (C) 8 (D) 4π (E) 8π