1. In the circle here, draw and label a tangent line, a secant line, and a radius.

## C-A1a

2. Find the length of $\overline{C D}$.

$3 \overline{A B}$ is tangent to circle C. Find its diameter.


C-B5a
4. Find the exact area of the shaded sector.

6. Find the degree measure of the indicated are. $\longrightarrow$
7. Find the degree measure of the indicated angle below.


## GPE-A1a

8. Write the equation of a circle where $(-10,11)$ and $(2,1)$ are endpoints of a diameter.
9. Does the point $(\sqrt{7}, 8)$ lie on a circle with center $(0,5)$ and radius 4 ? Show the calculations that lead to your conclusion.
10. Sketch the circle described by $(x+2)^{2}+(y-1)^{2}=9$

## C-A3a

11. Find the measure of $\widehat{R S}$ if $\angle R T S=106^{\circ}$


12. Find the measure of $\angle M K L$

