## Name:

$\qquad$

## Circumference and Area of a Circle

1) Find the area of the shaded region. Write your answers in terms of $\pi$. The three circles are tangent.

2) Find the area of the shaded region. Write your answers in terms of $\pi$
3) 


2)

3) Consider the circle inscribed in the square TASK shown below.


1) Find the area of the square.
2) Find the exact area of the circle in terms of $\pi$.
3) Express the shaded area in terms of $\pi$.
4) Express the area of the shaded region to the nearest hundredth.
5) In the following diagram MATH is a rectangle with an inscribed circle. The circle has a diameter of 8 centimeters and the rectangle has a height of 12 centimeters (as shown).

6) Find the exact area of the shaded region.
7) Find the area of the shaded region to the nearest tenth.
8) Find the area of the shaded region below in terms of ${ }_{\pi}$ if $Q P=8 \mathrm{ft}$ and $Q S=12 \mathrm{ft}$.

