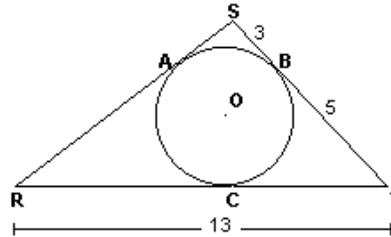


Name _____
Mr. Schlansky

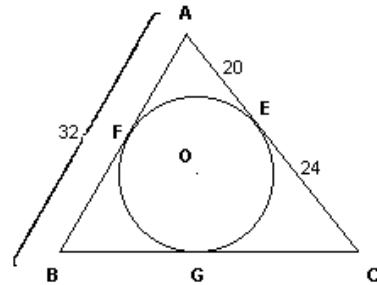
Date _____
Geometry

Tangents Drawn From The Same Point

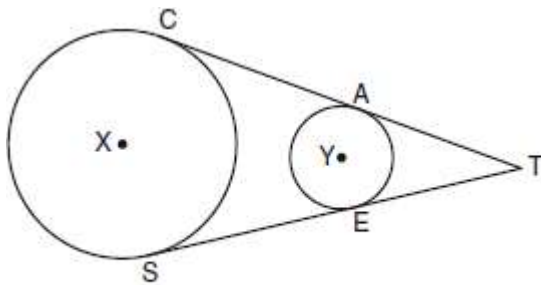
1. What is the perimeter of $\triangle RST$?



2. In the diagram, $\overline{AFB}$, $\overline{AEC}$, and $\overline{BGC}$ are tangent to circle O at F , E , and G , respectively. If $AB = 32$, $AE = 20$, and $EC = 24$, what is BC ?

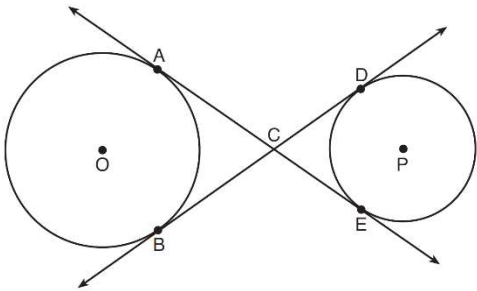


3. In the diagram below, circles X and Y have two tangents drawn to them from external point T . The points of tangency are C , A , S , and E . The ratio of TA to AC is $1 : 3$. If $TS = 24$, find the length of SE .

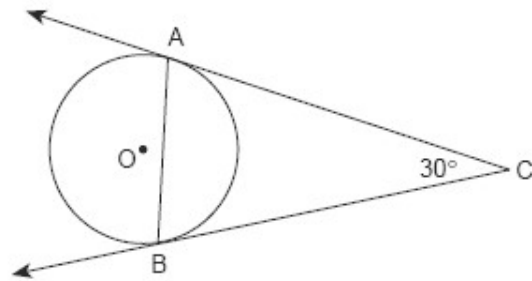


(Not drawn to scale)

4. Lines AE and BD are tangent to circles O and P at A, E, B , and D , as shown in the diagram below. If $AC:CE = 5:3$, and $BD = 56$, determine and state the length of $\overline{CD}$.



5. Find $m\angle CAB$



6. In the diagram, $\overline{AB}$ and $\overline{AC}$ are tangents to circle O , and chord $\overline{BC}$ is drawn. If $m\angle ABC = 72$, what is $m\angle A$?

