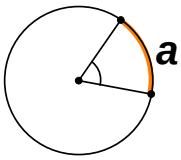
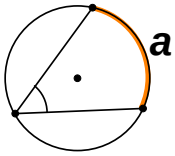
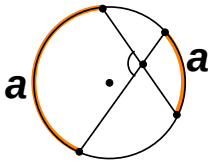
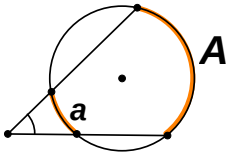
Geometry SOL Practice
Topic #11: Circles
Notes

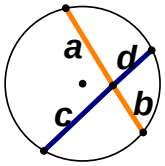
I. Formulas

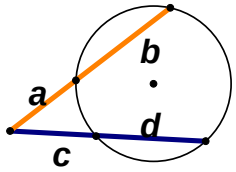
<table>
<tr><th>Angles</th><th>Segments</th></tr>
<tr><td>


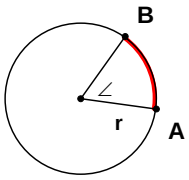
$\angle = a$


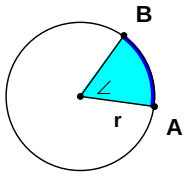
$\angle = \frac{1}{2}a$


$\angle = \frac{1}{2}(a+a)$


$\angle = \frac{1}{2}(A-a)$
</td><td>


$(a)(b)=(c)(d)$


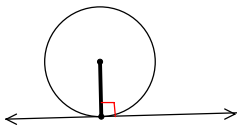
$(a)(a+b)=(c)(c+d)$
(outside)(whole) = (outside)(whole)
</td></tr>
<tr><th>Arc Length</th><th>Area of a Sector</th></tr>
<tr><td>


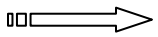
Arc Length = a ***fraction*** of the ***circumference***
$= \left(\frac{\angle}{360}\right)2\pi r$
</td><td>


Sector = a ***fraction*** of the ***area***
$= \left(\frac{\angle}{360}\right)\pi r^2$
</td></tr>
</table>

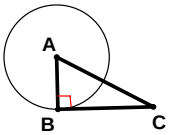
II. Other

Tangent ⊥ radius





$(AB)^2 + (BC)^2 = (AC)^2$



Congruent Segments with Tangents