SLO: I can solve problems involving chords angles and intercepted arcs. Problems worthy of attack prove their worth by fighting back. —
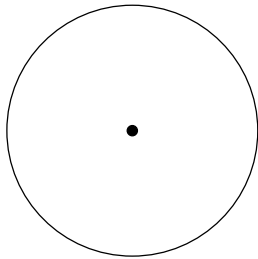Piet Hein THE ROAD TO WISDOM? Well, it's plain and simple to express. Err and err and err again, but less and less and less. — Piet Hein.

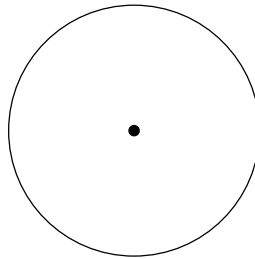**VOCABULARY (have your vocabulary sheet out EVERY day)**

(1) TO READ AND DO: Use the website link for Task 4 #1 or your textbook to investigate the relationship between angles formed by intersecting chords and the arcs they intercept. Complete a sketch for each example. Be sure to label the vertical angles 45 degree angles and the arc measures.

Two chords intersect and the pair of vertical angles formed are each 45°. The measures for the intercepted arc could be:
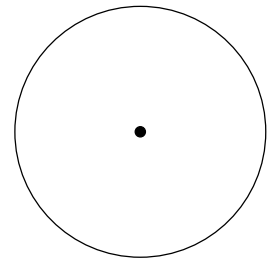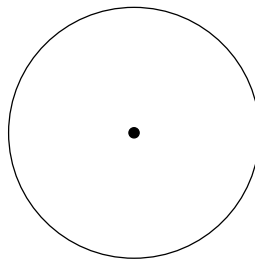
_____ and _____　　　　_____ and _____　　　　_____ and _____

Write a sentence that summarizes the relationship between the measure of the vertical angles and the arcs intercepted by them. Include a labeled diagram and an equation showing the relationship.
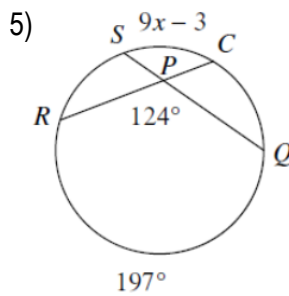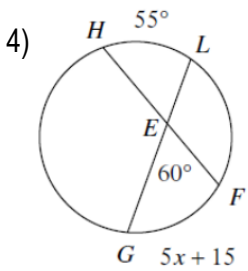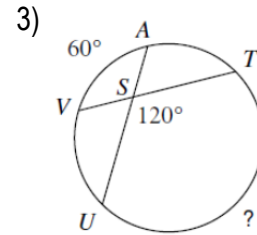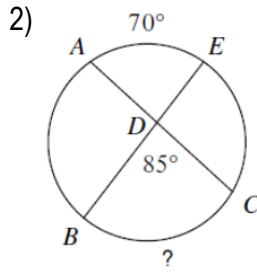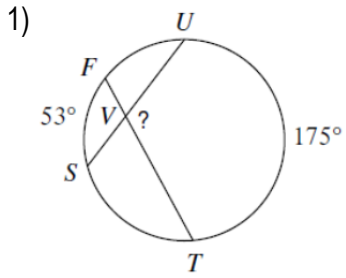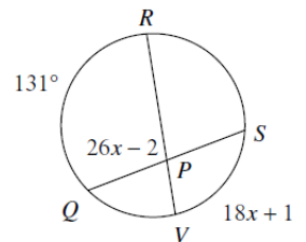
_____

_____

Equation:_____

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For #1-3, find the unkown arc or angle. *** Highlighting arcs and angles can be helpful. Odd problems required, even problems are good practice.

1)

U
F
53° V ?
S
175°
T

2)

70°
A   E
D
85°
B
?
C

3)

60°   A
S   T
V   120°
U   ?

4)

H 55°
L
E
60°
F
G 5x + 15

5)

S 9x − 3
P   C
R   124°
Q
197°

6) Find m∠QPR

R
131°
26x − 2
P   S
Q
18x + 1
V

7) Find m$\widehat{BC}$

8x + 11
B   C
8x + 6
A
F
9x − 7   D