Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Segments**

**If two chords are congruent, then their corresponding arcs are congruent.**



**x+4**

**2x-3**

1. 



**8x-7**

**3x+3**

1. 

**X**

**U**

**V**

**W**

1. 

**C**

**B**

**A**

**100°**



**If two chords are congruent, then they are equidistant from the center.**

**U**



**T**



**E**

**S**

**Y**

**R**

**K**

**If a diameter is perpendicular to a chord, then it also bisects the chord. This results in congruent arcs too. Sometimes, this creates a right triangle & you’ll use Pythagorean Theorem.**



**Q**

**Z**

**C**

**K**

**L**





**M**

**A**

**P**

**T**











**K**

**A**

**M**

**L**

**N**





**C**

**D**

**E**

**F**

**B**



|  |  |  |
| --- | --- | --- |
| two chords intersect INSIDE the circle |  |  |

1. 



**9**

**2**

**6**

**x**

1. 



**2x**

**3x**

**12**

**8**

1. 



**x-4**

**10**

**x**

**5**

|  |  |  |
| --- | --- | --- |
| two secants intersect OUTSIDE the circle |  |  |



**10**

**4**

**8**

**x**

1. 



**7**

**4**

**x**

**20**

1. 



**x**

**5**

**6**

**8**

1. 

|  |  |  |
| --- | --- | --- |
| one secant & one tangent intersect OUTSIDE |  |  |

1. 



**12**

**x**

**24**

1. 



**x**

**15**

**5**