

ANSWER KEY - UNIT 11 CIRCLES REVIEW PACKET (2014-15)

- |                    |                                      |  |
|--------------------|--------------------------------------|--|
| 1. $x = 3, RP = 5$ | 4. $BD = 30$                         | 8. $x = 115^\circ$   |
| 2. $x = 40$        | 5. $m\widehat{DF} = 134^\circ$       | 9. $m\angle LKA = 35^\circ$ ( $m\widehat{LA} = 60^\circ$ ) |
| 3. $x = 12$        | 6. $m\angle JKM = 58^\circ$          | 10. $m\angle WTV = 45^\circ$                               |
|                    | 7. diameter = 30 ft<br>(use P•P=P•P) | 11. $m\angle VXU = 105^\circ$                              |

12.  $m\angle JBM = 80^\circ$   
 13.  $x = 20^\circ$   
 14.  $x = 15^\circ$   
 15. Graph of circle has a center at (2, -1) and radius = 5  
 16.  $(x-2)^2 + (y-3)^2 = 25$   
 17. Proof:

Statements	Reasons
1. $m\widehat{BR} = 70^\circ, m\widehat{YD} = 70^\circ$ and $\overline{BOD}$ is a diameter of circle O.	1. Given
2. $\widehat{BR} \cong \widehat{YD}$	2. Arcs of = length are $\cong$ (or = measure $\longleftrightarrow \cong$ )
3. $\angle RDB$ is an inscribed $\angle$ $\angle YBD$ is an inscribed $\angle$	3 Defn of inscribed angles: An $\angle$ whose vertex is ON the circle is an inscribed angle.
4 $\angle RDB \cong \angle YBD$	4. Inscribed $\angle$ 's that intercept $\cong$ arcs are $\cong$ .
5. $\angle BRD$ & $\angle DYB$ are Rt. $\angle$ 's	5 Inscribed $\angle$ 's subtended by a diameter are right $\angle$ 's
6. $\angle BRD \cong \angle DYB$	6 All right $\angle$ 's are $\cong$
7. $\overline{BD} \cong \overline{BD}$	7 Reflexive Property of Congruence
8. $\triangle RBD \cong \triangle YDB$	8 AAS $\cong$ AAS

18. a.  $\frac{40\pi}{3}$  inches  
 b.  $64\pi \text{ in}^2$
19.  $\frac{\pi}{3}$  radians