Name _____ Trig Functions and the Unit Circle

1. The radius of the unit circle is _____.
2. The circumference of the unit circle is _____.
3. In which quadrants do sine and cosine have the same sign?

4. What relationship do you notice between the points on the unit circle and the sin and cos of the functions?

5. The largest value of sine is _____.
6. The smallest value of cosine is _____.
7. As angles increase from 0 to 180° what happens to:
   a. The value of sine?

   b. The value of cosine?

8. Name two angles that have:
   a. A sine value of $\frac{\sqrt{2}}{2}$

   b. A tangent value of $\frac{\sqrt{3}}{3}$

   c. A cosine value of $-\frac{\sqrt{3}}{2}$

9. a. sin 180° b. tan 240° c. sin 150° d. cos -45°

   e. tan -90° f. cos 660° g. sin -120° h. cos 360°

   i. tan -300° j. cos 180° k. cos 240° l. tan 120°