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

**Area of Circles & Area of Sectors**

**Show your work including how you set up the problem and round to the nearest tenth. Place your answer in the blank provided.**

75°

•

16 in

1. Find the area of the sector.

210°

•

18 mm

1. Find the area of the sector.
2. A circle has a diameter of 30 mm. Find the area.
3. A circle has an area of 400π m2. Find the measure of the radius.
4. A circle has an area of 0.79 m2. Find the measure of the radius.
5. A circle has an area of 706.86 m2. Find the measure of the diameter.
6. A sector has an area of 64π cm2. The arc is 90. Find the measure of the radius.
7. A sector has an area of 37.71 in2. The radius is 12 in. Find the measure of the intercepted arc.
8. A sector has an area of 40.5π yd2. The arc is 45. Find the measure of the radius.
9. A sector has an area of 36π yd2. The radius of the sector is 6 yd. Find the measure of intercepted arc. ***(Omit: it works out to be the whole circle. Change next time.)***
10. The area of the circle is 96 cm2. Find the diameter.
11. The area of the circle is 64 in2. Find the diameter.
12. The radius of the circle is 4 cm. The measure of the intercepted arc is 80. Find the area of the sector.
13. Find the radius of the circle with an area of 50 m2.
14. A sector has an area of 277 m2. The measure of the intercepted arc is 288. Find the diameter.