

Name \_\_\_\_\_

Date \_\_\_\_\_

## Radians, Degrees, and Arc Length - Independent Practice Worksheet

Complete all the problems.

- 1) Convert  $\pi/12$  to degrees.
- 2) How long is the arc subtended by an angle of  $2\pi/9$  radians on a circle of radius 13 cm?
- 3) Barry the Beaver gnaws his way through a circular section of wood. The sector has a radius of 5.90 m and central angle  $85.3^\circ$ . What is the area of this section of wood?
- 4) Convert  $40^\circ$  to radians.
- 5) Convert  $\pi/9$  to degrees.
- 6) How long is the arc subtended by an angle of  $3\pi/7$  radians on a circle of radius 40 cm?
- 7) Mike drops some heavy weights on his large circular kitchen table. As a result, a section of the table breaks off. The piece that breaks off has a radius of 4.40 m and a central angle of  $71^\circ$ . What is the area of this section of kitchen table?
- 8) Convert  $85^\circ$  to radians.
- 9) How long is the arc subtended by an angle of  $6\pi/7$  radians on a circle of radius 8 cm?
- 10) Convert  $25^\circ$  to radians.

