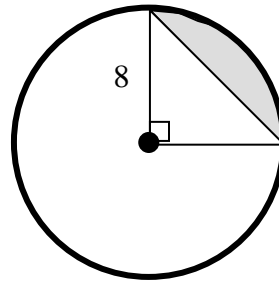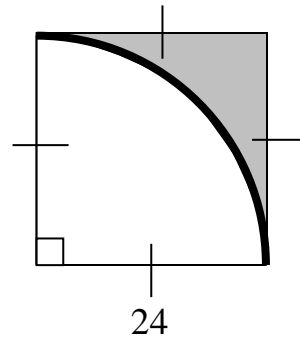1. A circle has a diameter of 20 cm. What is the area of a sector bounded by a 208° major arc? Round your answer to the nearest thousandth.
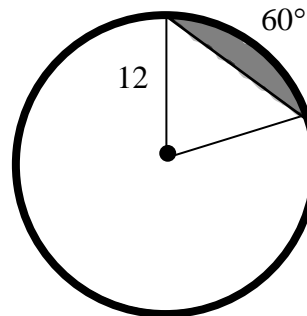
2. Find the area of the shaded part of the circle.

8

3. Find the perimeter and area of the shaded region.

24

4. Find the area of the shaded part of the circle.
(after solving this, how will your method change if
the arc measure is 86° instead?)

60°

12

5. Find the area of the shaded regions. Assume that parts of circles that appear to be semicircles are semicircles. All curves are fractions of an arc. Leave answers with pi or round to three decimal places.

20
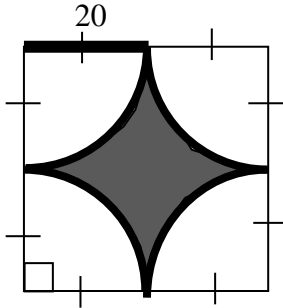
6. An advertisement states that a Roto-Sprinkler can water a circular region with area 1000 ft². Find the diameter of this region to the nearest foot.

7. A frozen dinner is divided into 3 sections on a circular plate with a 12-inch diameter. What is the approximate length of the arc of the section containing peas?

Peas

Pasta

203° 105°

Peach cobbler
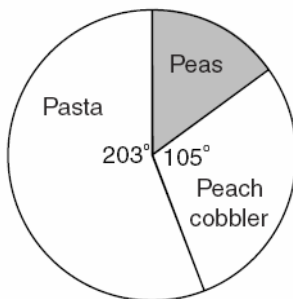
8. If the area of the segment below is 16π – 32 square feet, what is the length of the radius of circle O?

A

B

O