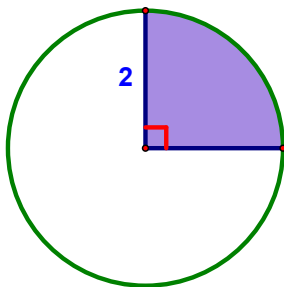3.

   Find the circumference of a circle whose area is 100π cm².

4.

   Find the area of a circle whose circumference is 18π dm².
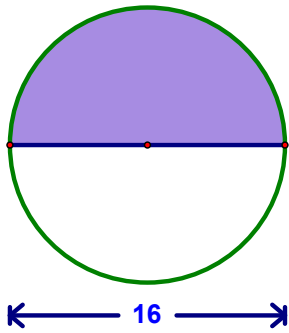
5a.

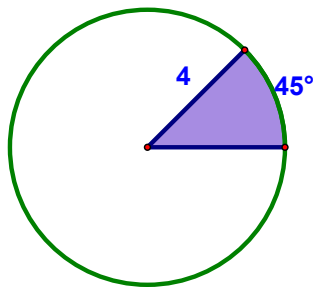   **Find the area of the shaded sector.**
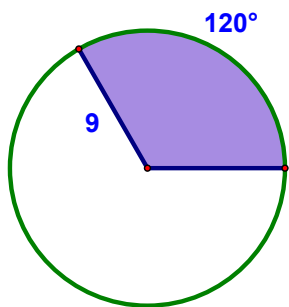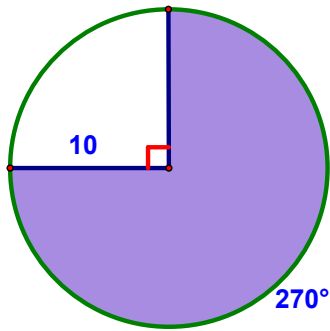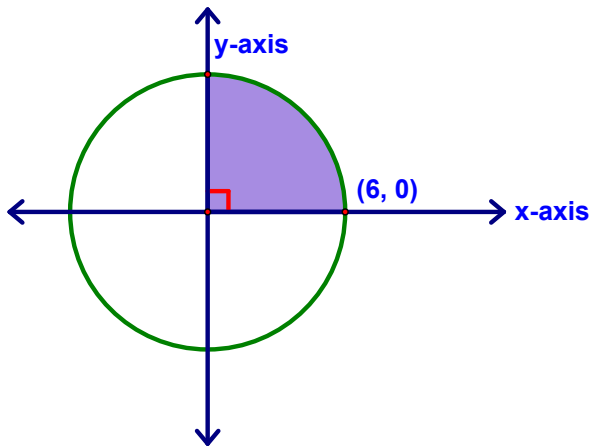
5b.

Find the area of the shaded sector.

16

5c.

Find the area of the shaded sector.

4   45°

5d.

Find the area of the shaded sector.

120°

9

5e.

Find the area of the shaded sector.

10

270°

5f.

Find the area of the shaded sector.

y-axis

(6, 0)

x-axis

9a.

Find the area of the shaded sector.

12

60°
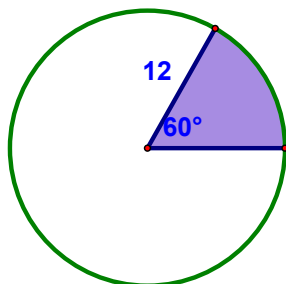
9b.

Find the area of the shaded sector.

12
30°
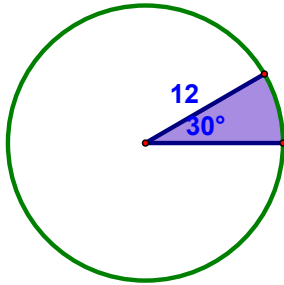
9c.

Find the area of the shaded sector if the length of the radius is 12 and m∠CDB = 10°.
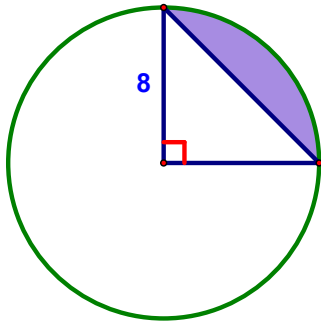
D   **C**
B
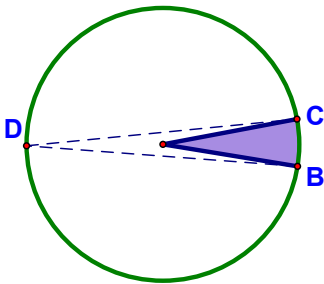
10.

If the area of a circle is 60π and the area of a sector of the circle is 24π, what is the measure of the sector's arc?

11a.

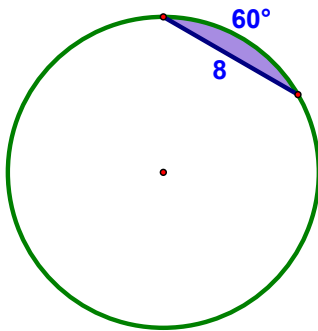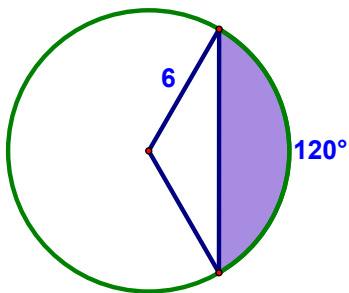**Find the area of the segment shown:**
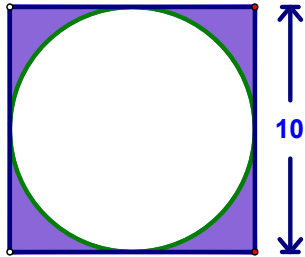

8

11b.

Find the area of the segment shown:

60°

8

11c.

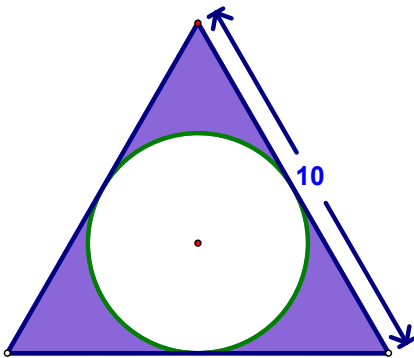**Find the area of the segment shown:**

6

120°

14a.

Find the area of the shaded region assuming the figure is a circle inscribed in a square.

10

14b.

Find the area of the shaded region assuming the figure is a circle inscribed in a regular triangle.

10

14c.

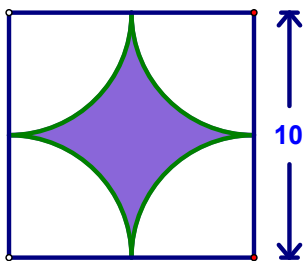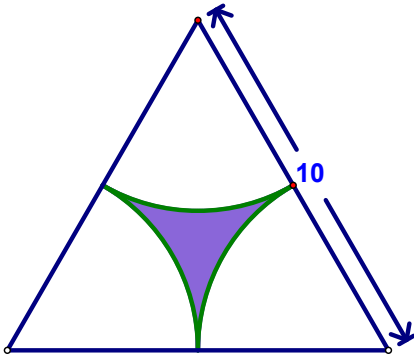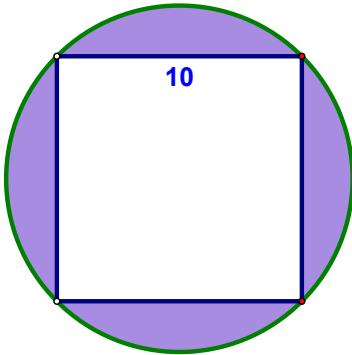**Find the area of the shaded region assuming the outside figure is square.**

10

14d.

Find the area of the shaded region assuming the figure is a circle inscribed in a regular triangle.
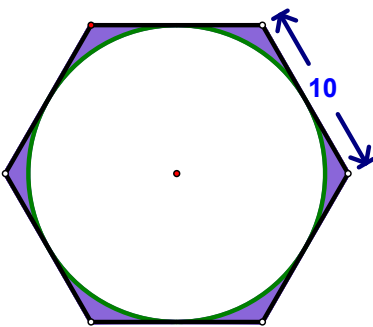

14e.

Find the area of the shaded region assuming the figure is a square inscribed in a circle.
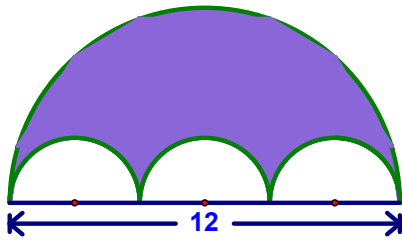

14f.

Find the area of the shaded region assuming the figure is a circle inscribed in a regular hexagon.
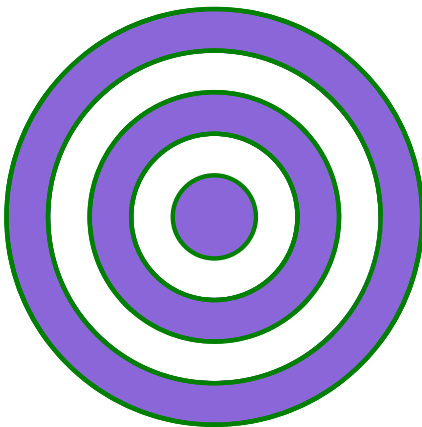
15.

   Find the area of the shaded region.

   12

16.

   On the target, the radius of the bull's-eye is 5 cm and each band is 5 cm wide.

   a. Find the total shaded area to the nearest square centimeter.

   b. Find the area of the unshaded bands to the nearest square centimeter.

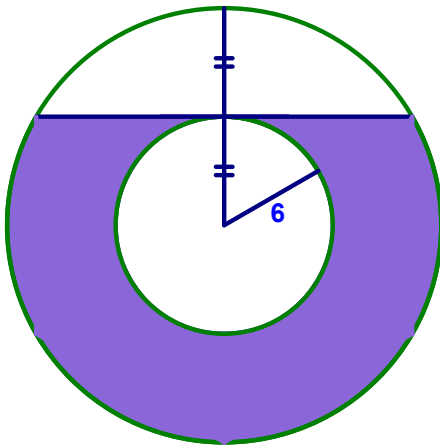   **c. What is the probability that if you hit the target, you will get a bull's-eye?**

17.

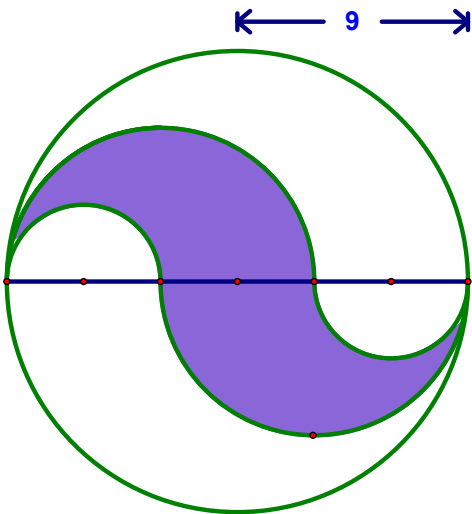   **In the square grid, each square is 2 cm wide. Find the area of the shaded region.**
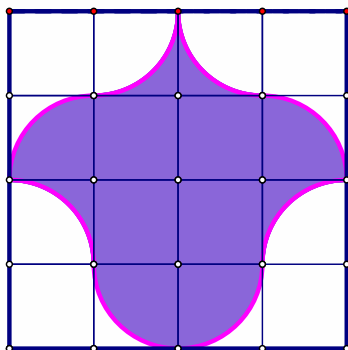
20a.

Find the area of the shaded region:
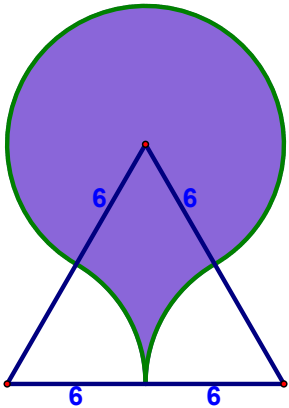

20b.

Find the area of the shaded region:

20c.

Find the area of the shaded region:

21.

Three arcs are drawn, centered at the midpoints of the sides of a triangle and meeting at the vertices, as shown. Find the total area of the shaded regions (which are called the lunes of Hippocrates). Find the area of the triangle.