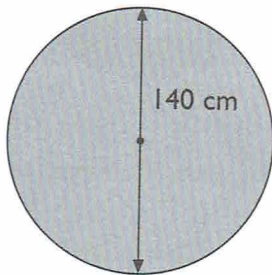# Practice 4 Area Of A Circle

(1) Find the area of each circle. $\left(\text{Take } \pi = \frac{22}{7}\right)$
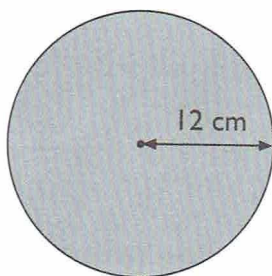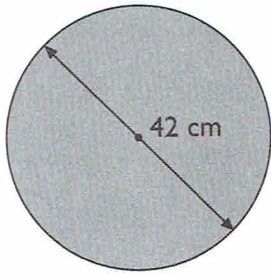
(a)

7 cm

(b)

140 cm
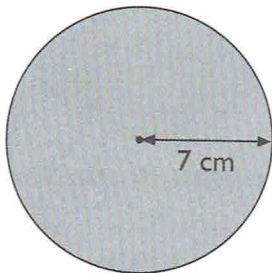
(2) 🖩 Find the area of the circles below. Give your answer correct to 2 decimal places.

(a)

12 cm

(b)

42 cm

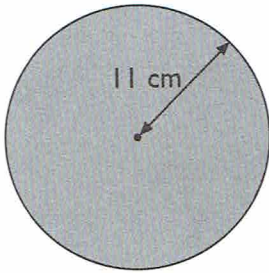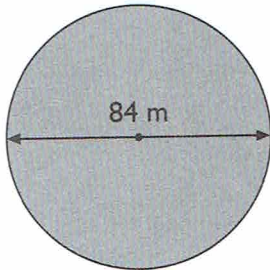**(3)** 📱 Find the area of each circle. Give your answer correct to 1 decimal place. (Take $\pi = 3.14$)
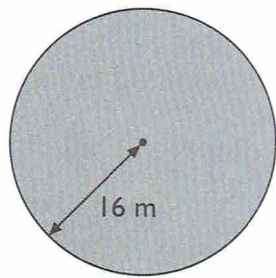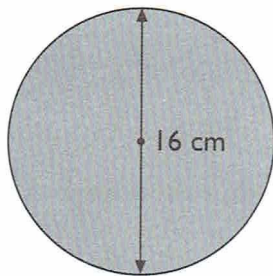
(a)

11 cm

(b)

84 m

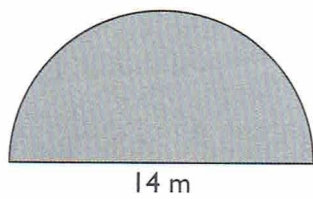(4) Find the area of each circle. Leave your answers in terms of π.
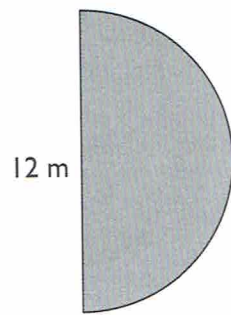
(a)

16 m

(b)

16 cm

(5) Find the area of each semicircle.
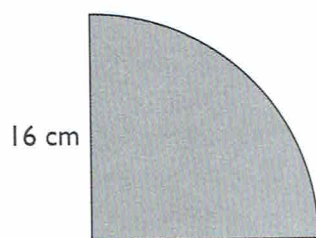
(a)

14 m

$$\left(\text{Take } \pi = \frac{22}{7}\right)$$

(b)

12 m

Leave your answer in terms of π.

(6) Find the area of the quadrant. Give your answer correct to 2 decimal places.
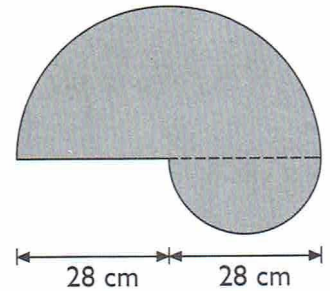
16 cm

(7) Find the area of each figure.

(a) The figure is made up of two semicircles. $\left(\text{Take } \pi = \dfrac{22}{7}\right)$

Area of big semicircle =

Area of small semicircle =

Area of figure =

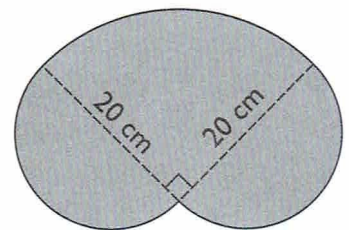(b) The figure is made up of a quadrant and 2 semicircles. Leave your answer in terms of π.

Area of quadrant =

Area of 2 semicircles =
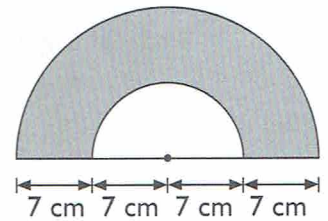
Area of figure =

(8) Find the area of the shaded part of each figure. (Take $\pi = 3.14$)

(a) The figure shows two semicircles.

Area of big semicircle =

7 cm 7 cm 7 cm 7 cm
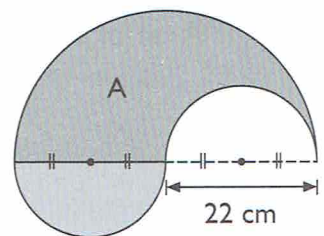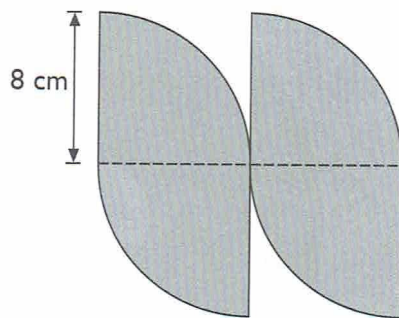
Area of small semicircle =

Area of shaded part =

(b) The figure shows three semicircles. Give your answer correct to the nearest whole number.
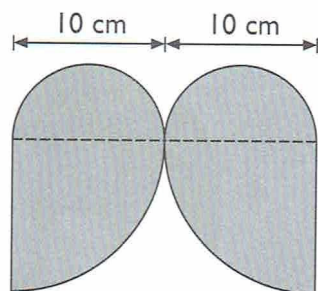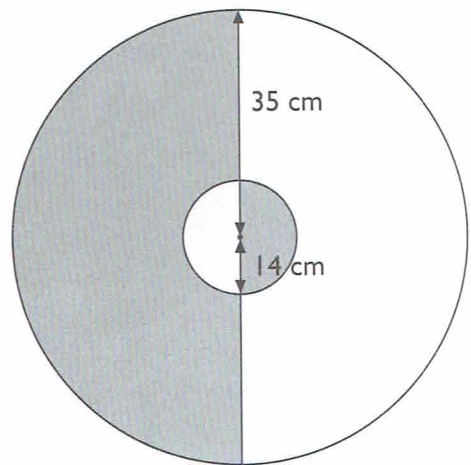

A

22 cm

(9) Find the area of each figure.

(a) The figure is made up of 4 identical quadrants. Leave your answer in terms of π.

8 cm

(b) The figure is made up of 2 semicircles and 2 quadrants. (Take $\pi = 3.14$)

10 cm   10 cm

(10) The figure shows two circles of radii 14 cm and 35 cm. Find the area of the
shaded part of the figure. $\left(\text{Take } \pi = \dfrac{22}{7}\right)$

35 cm

14 cm

(11) 📱 The figure is made up of 4 identical small circles of radius 3 cm and a bigger
circle of radius 14 cm. Find the area of the shaded part of the figure.
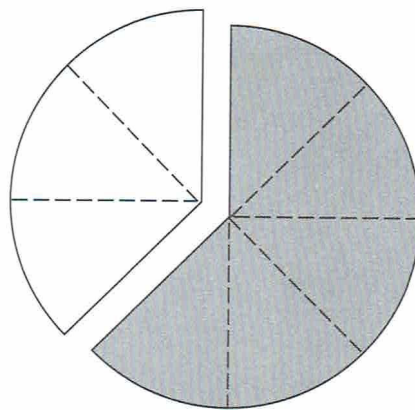(Take $\pi = 3.14$)
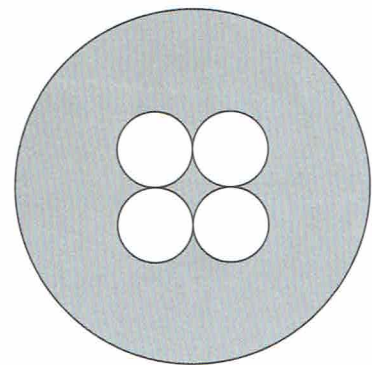
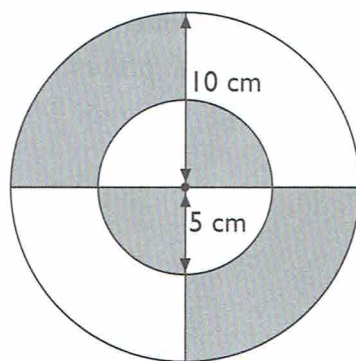(12) The figure shows a circle of diameter 136 cm. It is divided into 8 equal parts. Find:
- (a) the area of the shaded part of the figure.
- (b) the perimeter of the shaded part of the figure.

Give your answers correct to 2 decimal places.

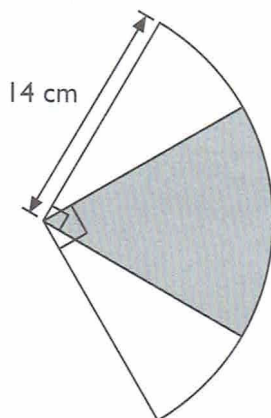(13) The figure is made up of two circles of radii 10 cm and 5 cm. What percentage of the whole figure is shaded? (Take π = 3.14)

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Challenging Practice

(1) The figure is made up of two quadrants overlapping each other. The area of the shaded part is 80 cm².

Find the total area of the unshaded parts. $\left(\text{Take } \pi = \dfrac{22}{7}\right)$

14 cm

(2) Two wheels shown below with centres A and B are 641 cm apart. The radius of the small wheel is 7 cm. The ratio of the radius of the small wheel to the radius of the big wheel is 1 : 3. Both wheels are rolled in the directions shown until their centres are 113 cm apart. The two wheels need to make the same number of revolutions.

How many revolutions does each wheel make assuming that each wheel must make a complete revolution? $\left(\text{Take } \pi = \dfrac{22}{7}\right)$