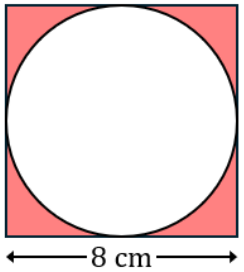
Harder Areas and Perimeters of Shapes Involving Circles

(a)

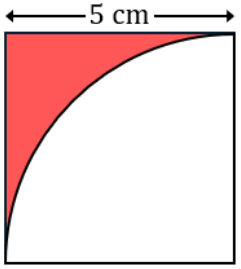
Find the shaded area to 1 decimal place.



$A = 13.7 \text{ cm}^2$

(b)

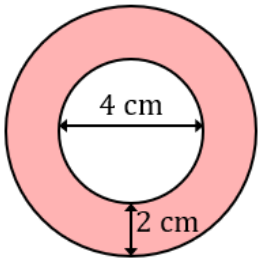
Find the perimeter of the shaded shape to 1 decimal place.



$P = 17.9 \text{ cm}$

(c)

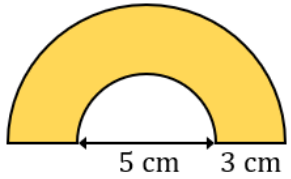
Find the area of the shaded shape, leaving your answer in terms of π



$A = 12\pi \text{ cm}^2$

(d)

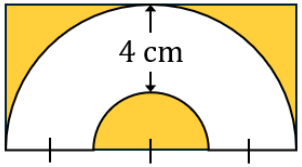
Find the area and perimeter of the shaded shape, both to 1 decimal place.



$A = 37.7 \text{ cm}^2$
$P = 31.1 \text{ cm}$

(e)

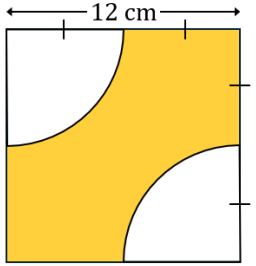
Find the total area of the shaded regions to 1 decimal place.



$A = 21.7 \text{ cm}^2$

(f)

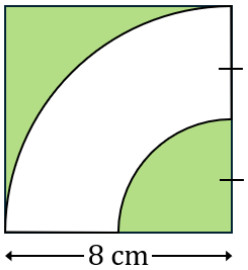
Find the area and perimeter of the shaded shape, to 1 decimal place.



$A = 87.5 \text{ cm}^2$
$P = 42.8 \text{ cm}$

(g)

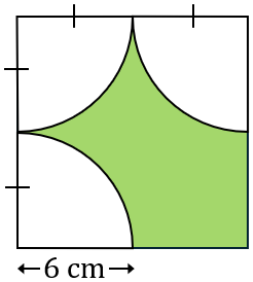
Find the total shaded area, giving your answer as an exact value.



$A = 64 - 12\pi \text{ cm}^2$

(h)

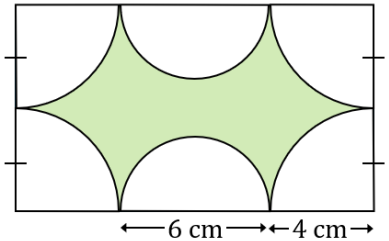
Find the area and perimeter of the shaded shape, rounding to 1 decimal place.



$A = 59.2 \text{ cm}^2$
$P = 40.3 \text{ cm}$

(i)

Find the area and perimeter of the shaded shape, rounding to 1 decimal place.



$A = 33.5 \text{ cm}^2$
$P = 44.0 \text{ cm}$