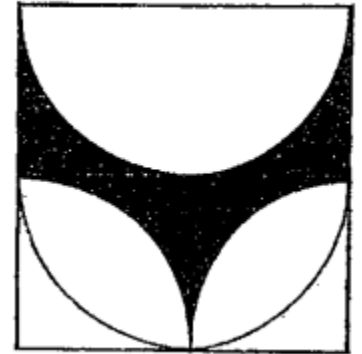
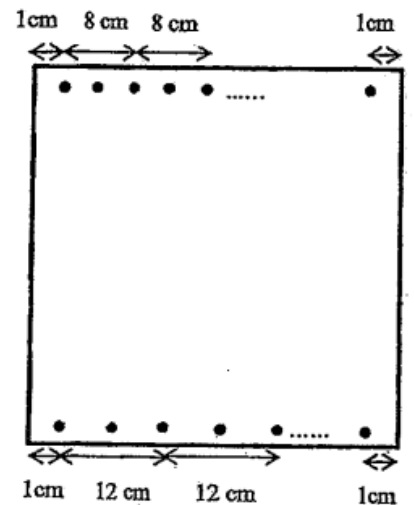


The figure below is made up of four 7 – cm squares and some identical quadrants.

- (a) Find the perimeter of the shaded figure.
  - (b) Find the shaded area.
- Leave your answers in 2 decimal places.

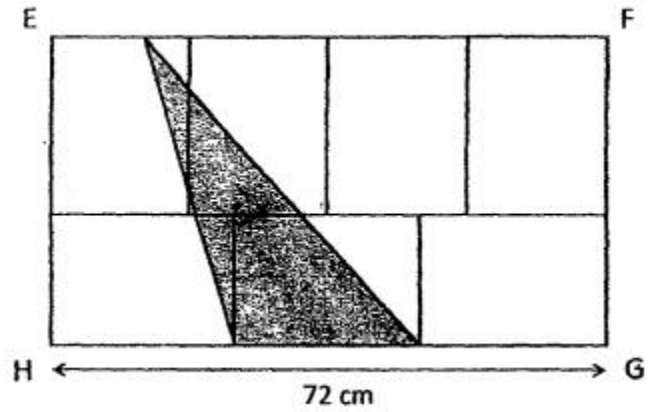


Refer to the diagram. Minnie marked some dots on 2 opposite sides of a square paper. There are 3 black dots at equal intervals on one side and 3 red dots at equal intervals on the opposite side as shown in the diagram. There are 32 more black dots than red dots. What is the length of the square paper?



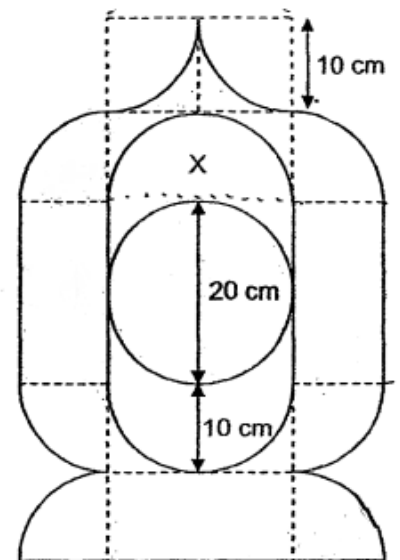
In the figure below, rectangle EFGH is made up of 7 identical rectangles.

- Find the perimeter of rectangle EFGH.
- Find the area of the shaded triangle.

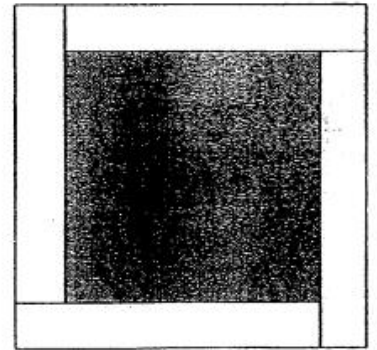


The figure below is made up of 1 circle, 3 identical rectangles and 12 identical quarter circles of radius 10 cm.

- Find the perimeter of the unshaded part, X
- Find the total area of the shaded parts.

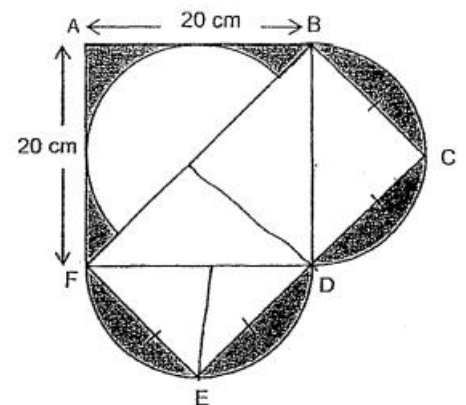


The figure below is made up of 4 identical rectangles and a shaded square. The perimeter of each rectangle is 30 cm. The area of the shaded square is  $17 \text{ cm}^2$  greater than the total area of the 4 rectangles. Find the length of the shaded square.

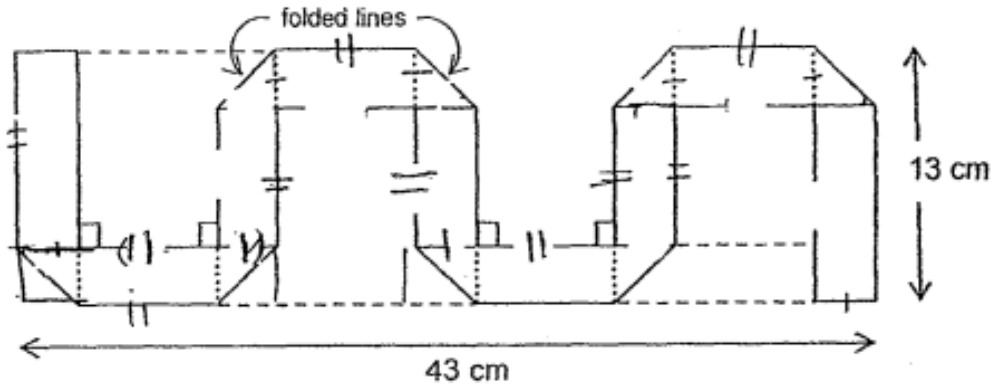


The figure below is made up of semicircles, a square ABDF and a rectangle BCEF. The length of the square ABDF is 20 cm.

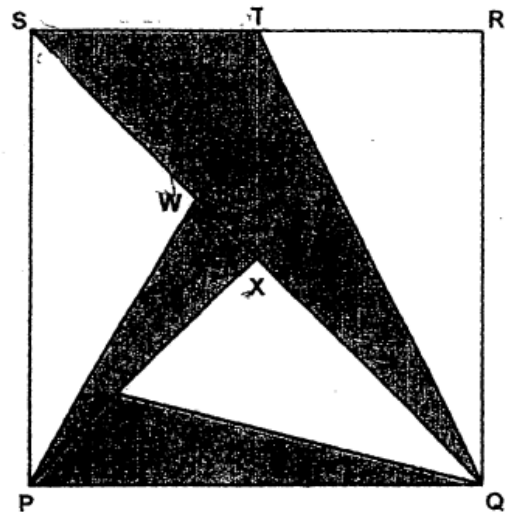
Find the area of the shaded figure. Leave your answer in terms of  $\pi$



The figure below is folded using a rectangular strip of paper. Find the length of the strip of paper.



In the figure below, PQRS is a square of sides 24 cm. X is the midpoint of QS.  $ST = TR$ . SX is 4 times of WX. PY is  $\frac{3}{8}$  of PX. Find the total shaded area.



Tom used some banners and flags to decorate the school hall. He used two strings of the same length. He cut the string into equal parts of length 80 cm and to each part he tied two banners as shown in Figure 1.

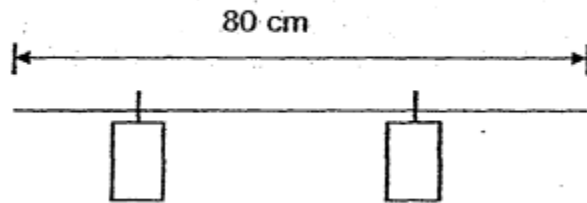


Figure 1

After that, he cut the other string into equal lengths of 1.2 m and to each part he ties small flags as shown in Figure 2.

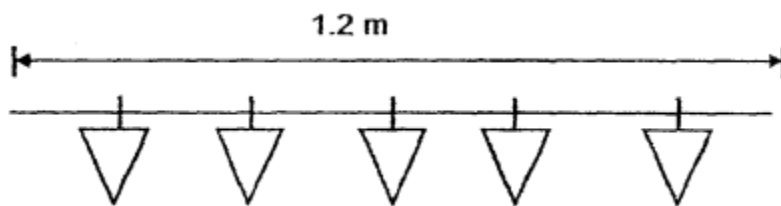


Figure 2

When he finished decorating, he counted 44 more flags than banners. How many banners were there?

The figure below shows a rectangle ABCD. EFG and DFB are straight lines. The area of rectangle