1. **The area of an equilateral triangle is $49\sqrt{3}$ cm^2. Taking each angular point as centre, circles are drawn with radius equal to half the length of the side of the triangle. Find the area of that part of the triangle which is not included in the circles.**

   (Use $\sqrt{3}$ =1.73, $\pi = \frac{22}{7}$)

2. A piece of wire 22 cm long is bent into the form of an arc of circle subtending an angle of 60° at its centre. Find the radius of the circle.

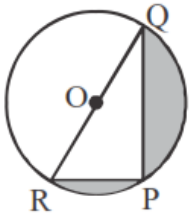
   $\left(Use\ \pi = \frac{22}{7}\right)$

3. The perimeter of a sector of a circle of radius 5.2 cm is 16.4 cm. Find the area of the sector.

4. The minute hand of a clock is 12 cm long. Find the area of the face of the clock described by the minute hand in 35 minutes.

5. In Fig. 4 is a sector of circle of radius 10.5 cm. Find the perimeter of the sector. $\left(\text{Take } \pi = \frac{22}{7}\right)$

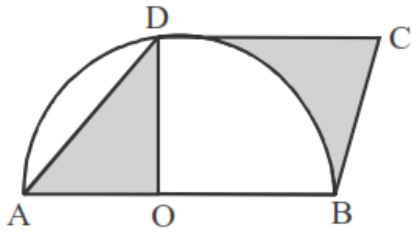
6. Find the area of the shaded region in Fig. 8, if PQ = 24 cm, PR = 7 cm and O is the centre of the circle.



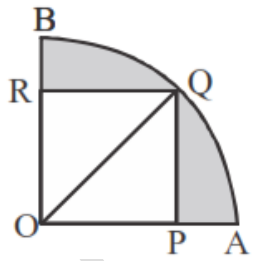
7. The area of a circular play ground is 22176 cm^2. Find the cost of fencing this ground at the rate of ₹ 50 per metre.

8. Find the area of the sector of a circle of radius 6 cm whose central angle is 30°. (Take $\pi = 3.14$)

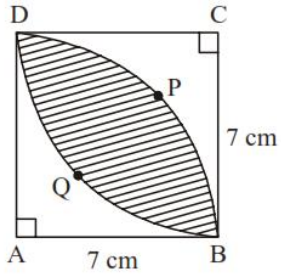
9. In Figure-8, ABCD is a parallelogram. A semicircle with centre O and the diameter AB has been drawn and it passes through D. If AB = 12 cm and OD ⊥ AB, then find the area of the shaded region. (Use $\pi = 3.14$)



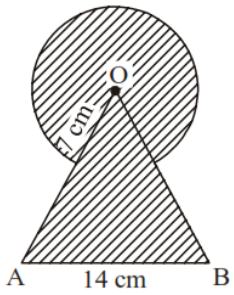
10. In Figure-8, a square OPQR is inscribed in a quadrant OAQB of a circle. If the radius of the circle is $6\sqrt{2}$ cm, find the area of shaded region.



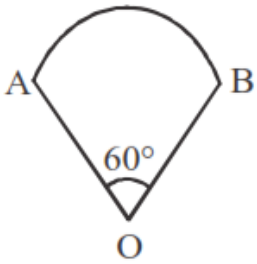
11. **Calculate the area of the shaded region common between two quadrants of circles of radius 7 cm each (as shown in Figure-8).**



12. **In Figure-8, find the area of the shaded region where a circular arc of radius 7 cm has been drawn with vertex O of an equilateral traiangle OAB of side 14 cm as centre. (Use $\pi = \frac{22}{7}$ and $\sqrt{3} = 1.73$)**



13. In Fig. 4 is a sector of circle of radius 10.5 cm. Find the perimeter of the sector. $\left(\text{Take } \pi = \frac{22}{7}\right)$



14. Sides of a right triangular field are 25m, 24m and 7m. At the three corners of the field, a cow, a buffalo and a horse are tied separately with ropes of 3.5 m each to graze in the field. Find the area of the field that cannot be grazed by these animals.