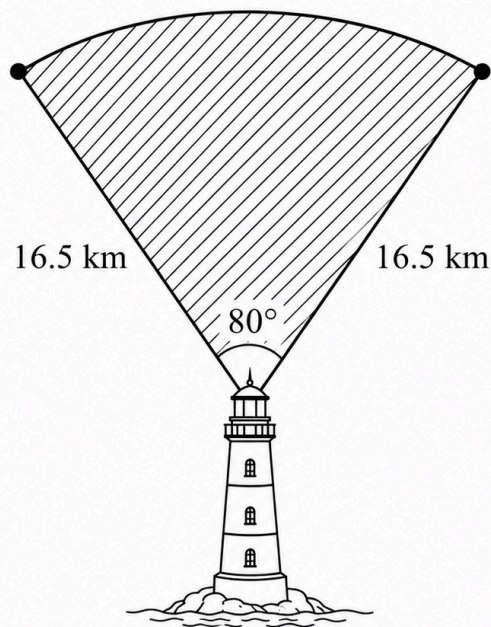



Class 10 Mathematics - Areas Related to Circles

Name: _____

Date: _____

Advanced Worksheet 4



 Warning region

Radius = 16.5 km

Sector angle = 80°

Questions

1. Find the area of the sea covered by the warning light.

2. Find the length of the arc covered by the warning light.
3. What fraction of the complete circle is covered by the light?
4. If the angle increases to 160° , what happens to the area covered?
5. Name the geometric figure formed by the warning region.
6. State the formula for the area of a sector.

Answer Key

1. Area = $(80/360) \times 3.14 \times 16.5^2 = 189.97 \text{ km}^2$
2. Arc Length = $(80/360) \times 2 \times 3.14 \times 16.5 = 23.03 \text{ km}$
3. $2/9$
4. The area doubles.
5. Sector
6. Area of Sector = $(\theta/360) \times \pi r^2$