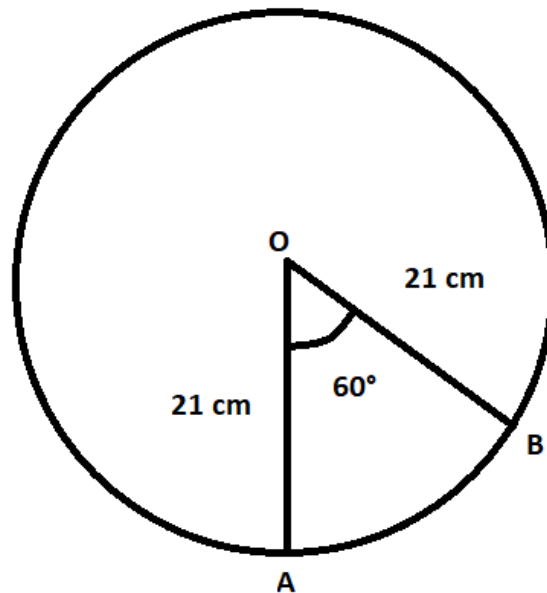


Class 10 Mathematics - Areas Related to Circles

Name: _____

Date: _____

Advanced Worksheet 1



Questions

1. Find the length of arc AB.
2. Find the area of sector OAB.
3. Find the area of ΔOAB .
4. Find the area of the corresponding minor segment.
5. State the formula for area of a segment.

6. What is the difference between a major segment and a minor segment?

Answer Key

1. Arc Length = $(60/360) \times 2 \times (22/7) \times 21 = 22 \text{ cm}$
2. Area of Sector = $(60/360) \times (22/7) \times 21 \times 21 = 231 \text{ cm}^2$
3. Area of $\triangle OAB = (\sqrt{3}/4) \times 21^2 = 190.96 \text{ cm}^2$
4. Area of Segment = $231 - 190.96 = 40.04 \text{ cm}^2$
5. Area of Segment = Area of Sector – Area of Triangle
6. Minor segment is the smaller region formed by a chord and an arc; major segment is the larger region.