Integrated Math 3
Unit 1: Analytic Geometry
1.11 WS

Name: _____

Date: _____ Period: _____

Arc Length & Sector Area

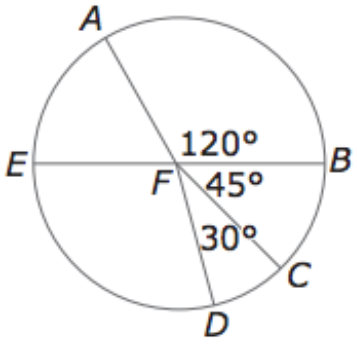
1. *Multiple Choice:* The circle with the center F is divided into sectors. In circle F, $\overline{EB}$ is a diameter. The length of $\overline{FB}$ is 3 units. Select the correct expression that represents the arc length of arc $\widehat{AED}$.

A. π

B. $\frac{11\pi}{4}$

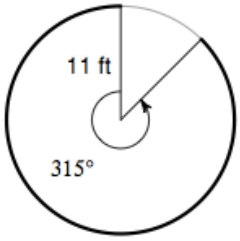
C. $\frac{13\pi}{4}$

D. $\frac{7\pi}{4}$

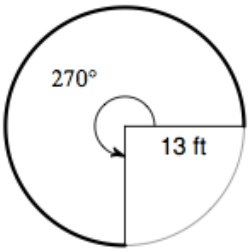


2. Find the length of the arc.

a.)



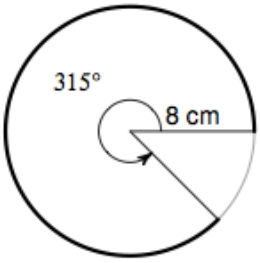
b.)



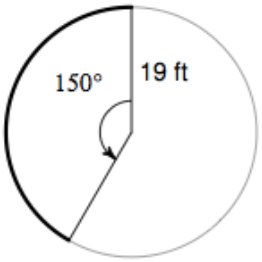
3. Find the length of a 90° arc of a circle with a diameter of 10 m.

4. Find the area of a sector.

a.)



b.)



5. Find the area of a sector of a 30° arc of a circle with a diameter of 12 cm.

6. Find the area of a sector of a 90° arc of a circle with a radius of 10 m.