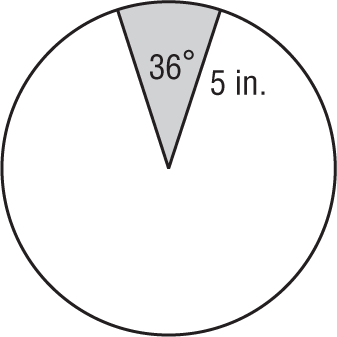
**Study Guide and Homework**

***Areas of Circles and Sectors***

**Areas of Sectors** A sector of a circle is a region bounded by a central angle and its intercepted arc.

|  |  |
| --- | --- |
| **Area of a Sector** | If a sector of a circle has an area of *A* square units, a central angle measuring *x*°, and a radius of *r* units, then *A* = π. |

**Example: Find the area of the shaded sector.**

*A* = ⋅ π Area of a sector

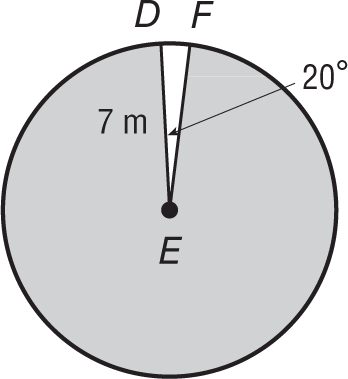
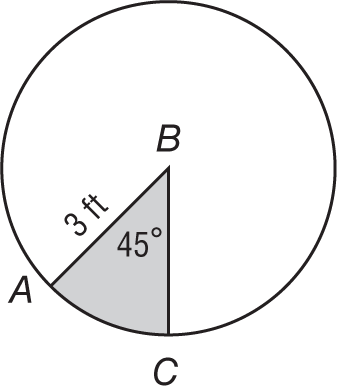
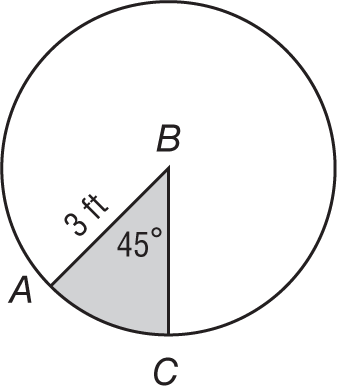
= ⋅ π *x* = 36 and *r* = 5

≈ 7.85 Use a calculator.

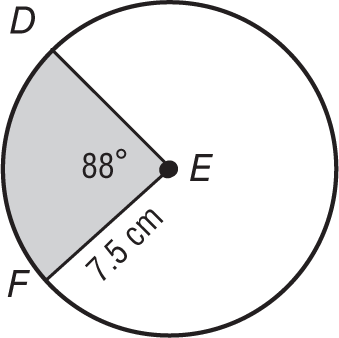
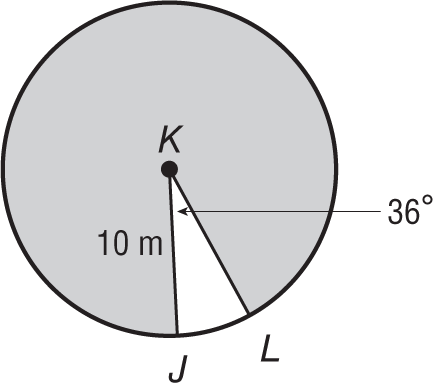
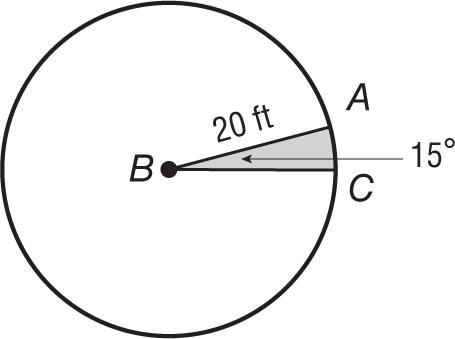
The area of the sector is about 7.85 square inches.

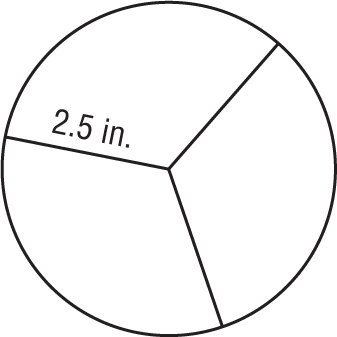
**Exercises**

**Find the area of each shaded sector. Round to the nearest tenth.**

** 1. 2. 3.**

**4. 5. 6.**

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** 7. SANDWICHES** For a party, Samantha wants to have finger sandwiches. She cuts sandwiches into circles. If she cuts each circle into three congruent pieces, what is the area of each piece?