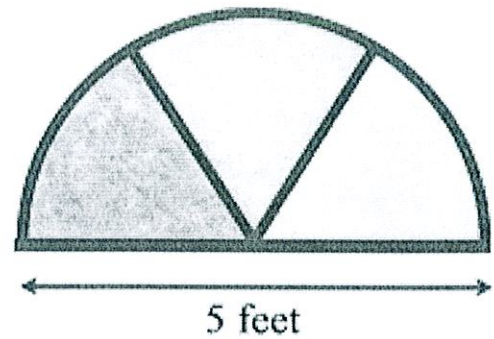


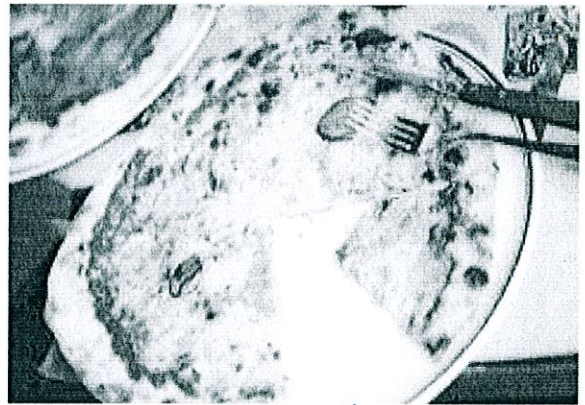
Arc Length and Area of a Sector Applications

Act. #39

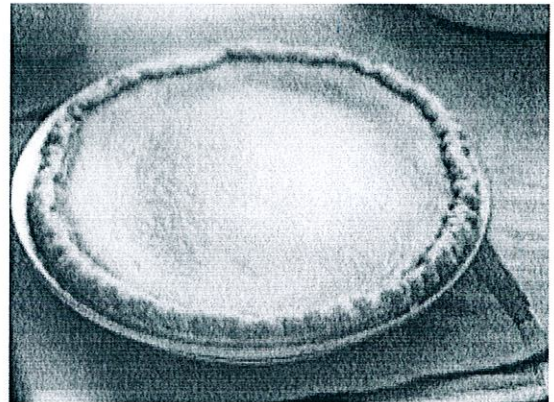
1. A cathedral has a stained glass window built in the shape of a semicircle. A sketch of the window is shown to the right. If the window is to contain 3 sections of equal size, what is the area of each stained glass section? What is the length of the outside arc of each stained glass section?



2. You stop for lunch at a local pizza shop where each pizza is cut into 8 slices. Would your hunger be satisfied better with one slice from a 16 inch pizza or two slices from a 12 inch pizza?



3. For thanksgiving your aunt makes your favorite pumpkin pie and cuts it into 8 slices. You eat 3 pieces of the 10 inch pie. What is the area of the section of pie you ate?



4. Your school is planning a game night and one of the games is a spinner with prizes on it. There are 6 sections on the spinning wheel and each section will be painted a different color. You are responsible for getting the paint, but the sales clerk needs to know how much area needs to be covered by each color so he can give you enough paint. The diameter of the spinner is 6 feet. What is the area of each section?

5

A sprinkler is located at the edge of a lawn and rotates 90 degrees. If the sprinkler shoots out water 30 feet, what is the area of lawn that is watered?

6

A Ferris wheel has 16 seats and a diameter of 60 feet. The wheel lets off the passengers in one seat, and then revolves until the next seat is at the platform. Approximately how far does each seat travel in this time?

7

A pumpkin pie is made in a mini pie pan measuring 5 inches in diameter. It is cut into 4 equal slices. What is the area of 1 piece of pie?

