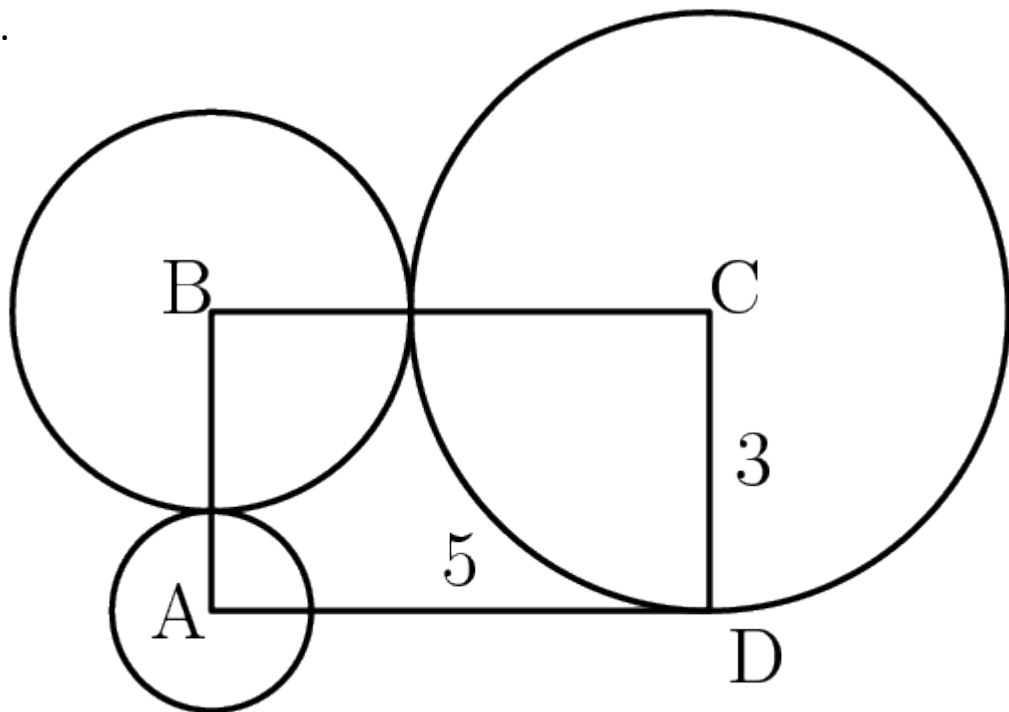# Station 1

Find the circumference.

1) radius = 34 centimeters

2) diameter = 34.4 inches

3) Find the circumference of circle A, circle B, and circle C. Units are feet.
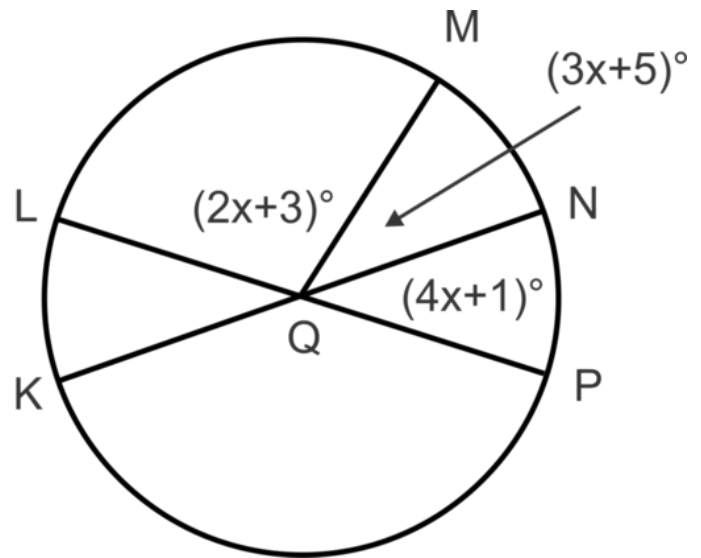
Station 2

Find the **arc measure** in the following problems.

1) $m\widehat{MN}$ 2) $m\widehat{MLK}$

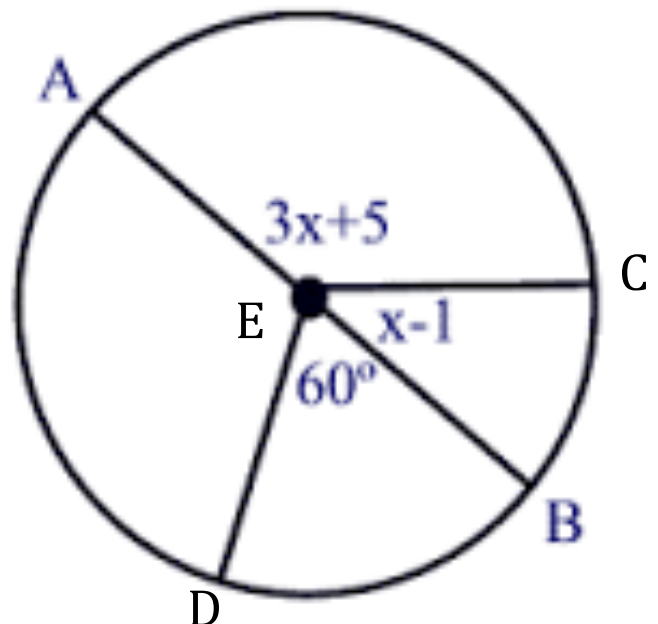3) $m\widehat{NLP}$ 4) $m\widehat{MKN}$

Find the **central angle measure** in the following problems.

5) $m\angle AED$ 6) $m\angle CEB$

7) $m\angle AEC$ 8) $m\angle AEB$

Station 3

You are given a protractor, ruler, and colored pencils.

Given the following information, create an exact circle graph.

Step 1: Find the degree of the central angles for the following pieces of information.

Favorite College	Percent	Central Angle Measure
Purdue	38%	
IU	34%	
Notre Dame	28%	

Step 2: Create one radius and create your first central angle measure.

Step 3: Label, title, and color your circle graph.

Station 4

Find the **arc length** for the following problems.

1) Find the length of $\overset{\frown}{BAE}$ if the diameter of circle J is 14 centimeters and $m\overset{\frown}{NPL}$ is 130°.

2) Find the length of $\overset{\frown}{JK}$ if the radius of circle M is 15 inches and $m\overset{\frown}{JK}$ is 300°.

3) Find the length of the radius of circle P if the length of $\overset{\frown}{DAB}$ is 300 feet and the $m\overset{\frown}{DAB}$ is 180°.

Station 5

Solve the following word problems.

1) Arthur ran around a circular field 3 times. If he ran a total of 750 meters, what is the diameter and radius of the field?

2) Find the distance travelled by the tip of the second hand of a clock in 1 minute if the hand is 6 cm long.

3) Find the distance travelled by the tip of the minute hand of a clock in 15 minutes if the hand is 8 inches.

4) Charmaine has a circular garden that has a flag pole in the center. She separates into three equal parts to divide her vegetables. The section divides are 10 feet long. How much money will she spend on fencing for her garden if the fence costs $1.30 per foot and she needs to purchase fencing for around the garden and the divides.