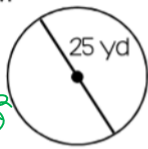
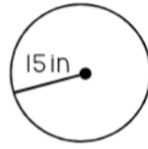


CODE RED – EXIT TICKET

<p>1 Find the area of the circle below:</p>  $A = \pi r^2$ $A = \pi (12.5)^2$ $\checkmark A = 156.25\pi \text{ yd}^2$ $\checkmark A = 490.87 \text{ yd}^2$	<p>2 Find the circumference of the circle below:</p>  $C = 2\pi r$ $C = 2\pi 15$ $\checkmark C = 30\pi \text{ in}$ $\checkmark C = 94.25 \text{ in}$
<p>3 Find the diameter of a circle with an area of 804.25 cm^2.</p> $A = \pi r^2$ $804.25 = \pi r^2$ $r^2 = \frac{804.25}{\pi}$ $r = 16$ $d = 32 \text{ cm}$	<p>4 Find the radius of a circle with a circumference of 28.27 km.</p> $C = 2\pi r$ $28.27 = 2\pi r$ $r = 4.5 \text{ km}$
<p>5 Find the area of a circle with a circumference of 50.27 ft.</p> $C = 2\pi r$ $50.27 = 2\pi r$ $r = 8$ $A = \pi r^2$ $A = \pi 8^2$ $A = 64\pi \text{ ft}^2$	<p>6 Find the circumference of a circle with an area of 95.03 m^2.</p> $A = \pi r^2$ $95.03 = \pi r^2$ $r^2 = \frac{95.03}{\pi}$ $r = 5.5$ $C = \pi d$ $C = 11\pi \text{ m}$

ARCS AND CENTRAL ANGLES

SOL G.12

Learning Target: By the end of class today, given the radius and a central angle within a circle, I will be able to determine missing measures of arcs and central angles by completing guided notes and scoring at least 75% on an exit ticket, answering at least 3 out of 4 questions correctly.

Essential Questions:

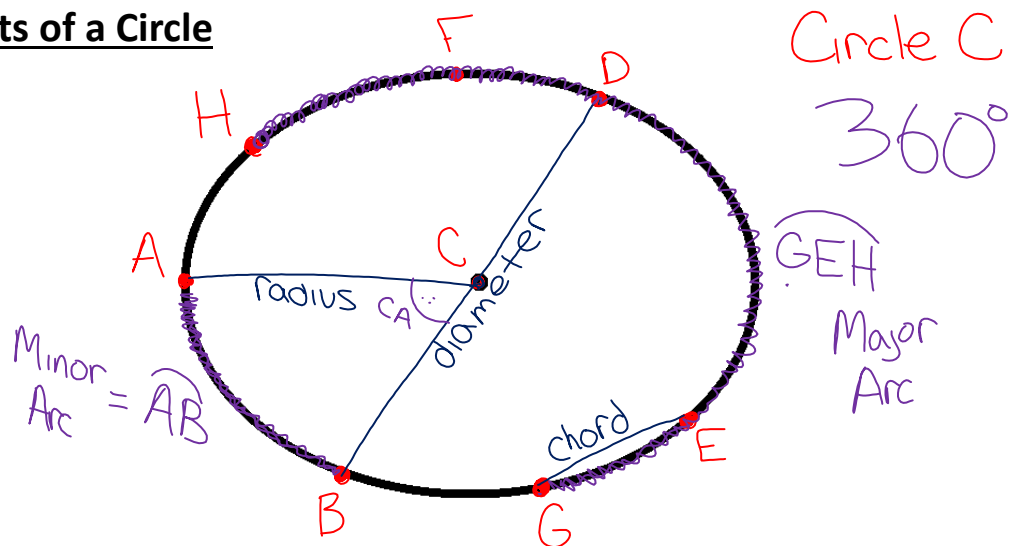
- How are the measures of arcs and their central angles related?

TODAY'S AGENDA

- ✓ Exit Ticket Review
- ✓ Parts of a Circle
- ✓ Arcs and Central Angles
- ✓ Independent Practice
- ✓ Exit Ticket

CODE YELLOW

Parts of a Circle



CODE YELLOW

Vocabulary

Arc – a part of the circumference

Minor Arc – an arc less than 180° ; two letters

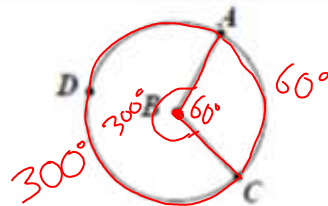
Major Arc – an arc more than 180° ; three letters

Central Angle – an angle with a vertex at the center of the circle. (They all add up to 360°)

CODE YELLOW

CENTRAL ANGLES

A central angle is an angle with a vertex on the center of a circle.



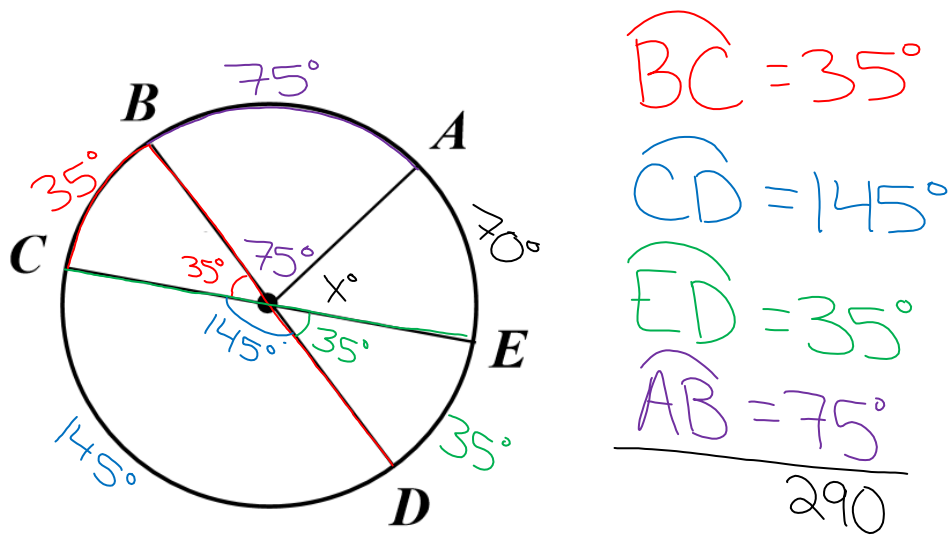
$$\angle ABC = 60^\circ$$

$$\widehat{AC} = 60^\circ$$

$$\widehat{ADC} = 300^\circ$$

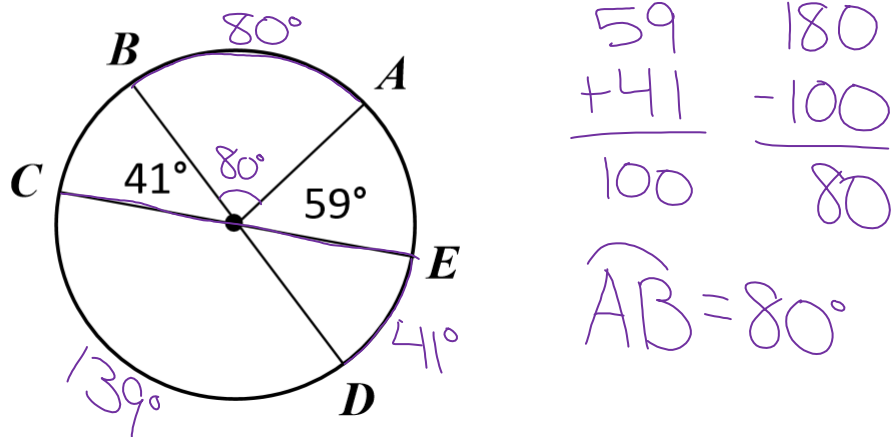
The sum of all central angles in a circle is 360° .

CODE YELLOW



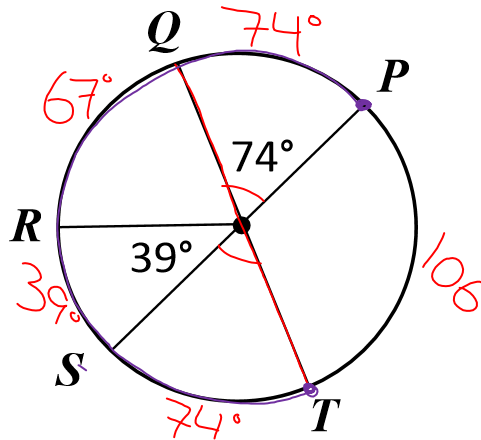
CODE YELLOW

Given the circle below,
find the measure of \widehat{AB} .



CODE YELLOW

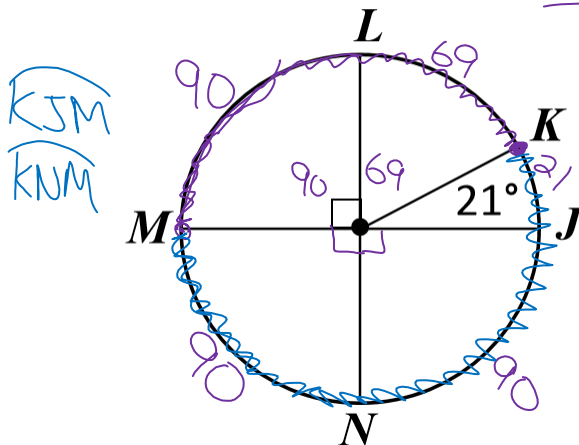
Given the circle below,
find the measure of \widehat{PST} .



$$\widehat{PST} = 254^\circ$$

CODE GREEN

Given the circle below,
find the measure of \widehat{KM} .

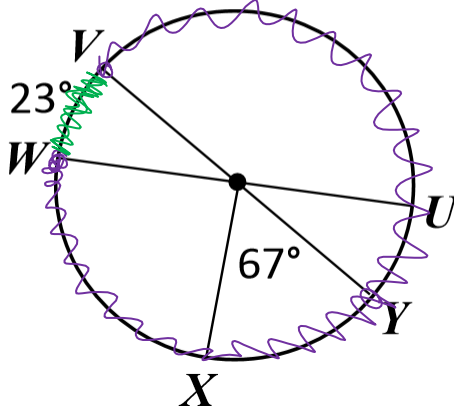


$$\begin{array}{r} 69 \\ + 90 \\ \hline 159^\circ \end{array}$$

\widehat{KJM}
 \widehat{KNM}

CODE GREEN

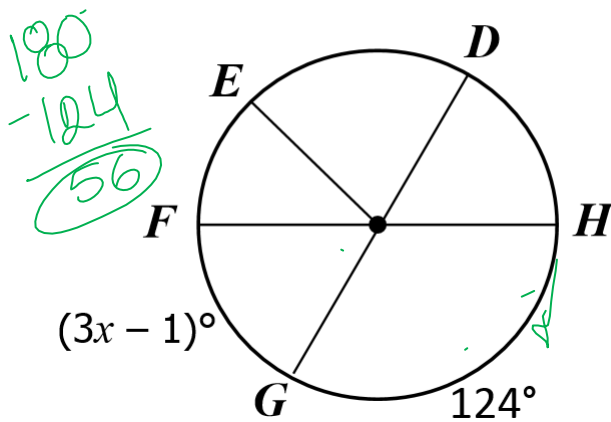
Given the circle below,
find the measure of \widehat{VYW} .



$$\begin{array}{r} 360 \\ - 23 \\ \hline 337 \end{array}$$

CODE GREEN

Given the circle below,
find the value of x .

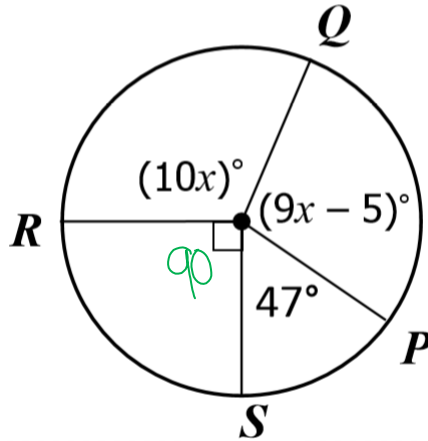


$$\begin{array}{r} 180 \\ - 124 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 3x - 1 = 56 \\ +1 \quad +1 \\ \hline 3x = 57 \\ \div 3 \quad \div 3 \\ \hline x = 19 \end{array}$$

CODE GREEN

Given the circle below,
find the value of x .



$$\begin{aligned}
 10x + 9x - 5 + 47 + 90 &= 360 \\
 19x + 132 &= 360 \\
 -132 &\quad -132 \\
 \hline
 19x &= 228 \\
 \frac{19x}{19} &= \frac{228}{19} \\
 x &= 12
 \end{aligned}$$

CODE RED – EXIT TICKET

Complete Problems #1-4

1. What is the difference between a minor arc and a major arc?
Minor Arc – two letters, $< 180^\circ$

Major Arc – three letters, $> 180^\circ$

2. What is $m\angle BFC$?

110°

3. What is the $m\widehat{ACD}$?

250°

4. If $m\widehat{AE} = 3x + 9$, what is the value of x ? **$x = 17$**

