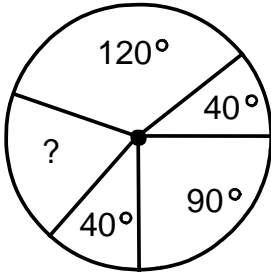


Geometric Figures: Skill 5 - 21A

Circles

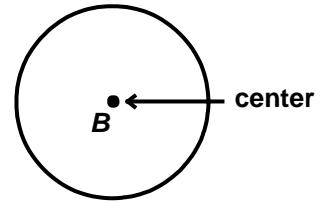
Answer to test question 21A.
What is the unknown angle measure?



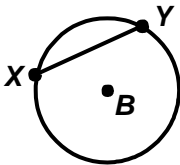
Answer:
70°

The topic "How to find the unknown measure of an angle in a circle" is on page 3 of this worksheet.

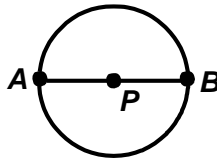
A circle is a 2-dimensional, closed figure. All points on the circle are the same distance from the center. A circle is named by its center. This circle is called circle B.



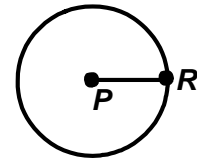
A **chord** is a line segment that joins two points on a circle.



The **diameter** of a circle is a chord that passes through the center of a circle.



The **radius** of a circle is a straight line extending from the center of a circle to a point on the circle.



Example

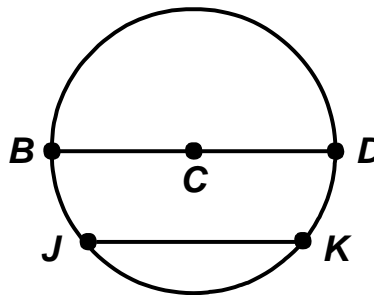
1. Directions: Use the circle to name the center, a chord, a diameter and a radius. This exercise is completed for you as an example.

center: C

chord: \overline{JK}

diameter: \overline{BD}

radius: \overline{CD}



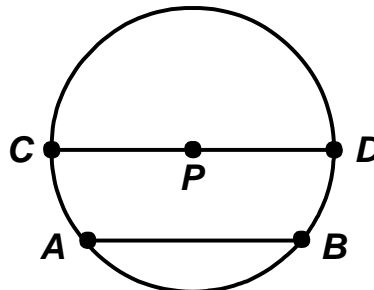
2. Directions: Try this one. It's similar but you write the name of the parts of a circle in words instead of symbols. The first one is done for you. P is a symbol for the center of the circle as shown in the diagram.

P center _____

\overline{PD} _____

\overline{CD} _____

\overline{AB} _____

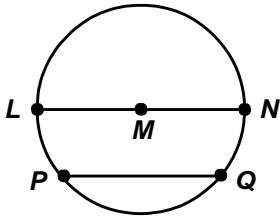


Geometric Figures: Skill 5 - 21A

Circles

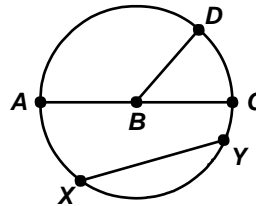
Directions: Name the parts of each circle below.

3. The first one is done for you.



1. \overline{LN} diameter
2. \overline{MN} _____
3. \overline{PQ} _____
4. M _____

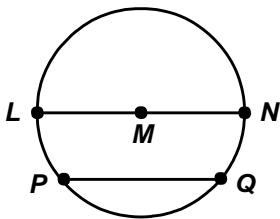
4.



1. \overline{DB} _____
2. \overline{AC} _____
3. \overline{XY} _____
4. B _____

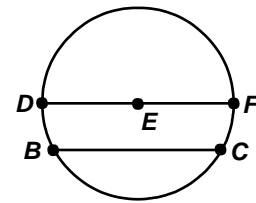
Directions: Write the symbol for the parts of the circle.

5. The first one is done for you.



1. diameter \overline{LN}
2. center _____
3. chord _____
4. radius _____

6.



1. center _____
2. chord _____
3. diameter _____
4. radius _____

Directions: Draw and label a circle in each box.

7. Draw and label a circle.

radius: \overline{PB}

diameter: \overline{AB}

chord: \overline{RS}

center: P

8. Draw and label a circle.

radius: \overline{YZ}

diameter: \overline{XZ}

chord: \overline{LM}

center: Y

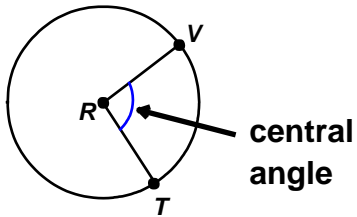
Geometric Figures: Skill 5 - 21A

Circles

Central Angle

When two radii meet at the center point of a circle, the angle formed is called a *central angle*.

Illustration of a central angle.

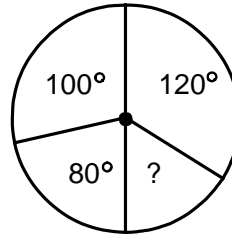


The central angle $\angle VRT$ is formed between two radii.

The plural of radius is radii.

Find the unknown measure of an angle in a circle.

The sum of the angles in any circle is always 360° .



Subtract the sum from 360° .

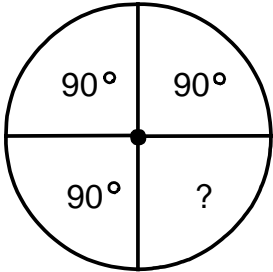
$360^\circ - 300^\circ = 60^\circ$
The unknown angle measure is 60° .

Find the sum of the angles.

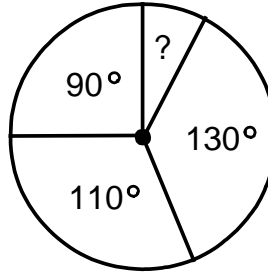
$$100^\circ + 80^\circ + 120^\circ = 300^\circ$$

Directions: Name the parts of each circle below.

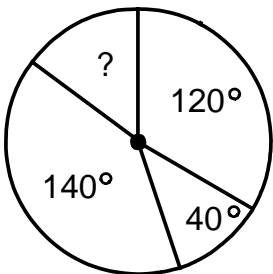
9.



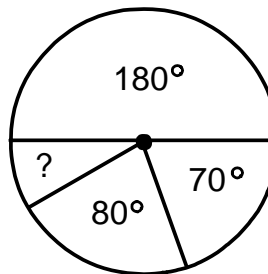
10.



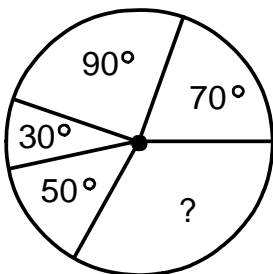
11.



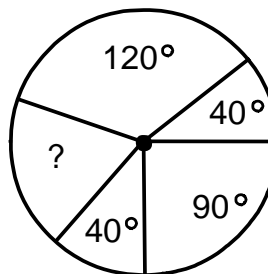
12.



13.



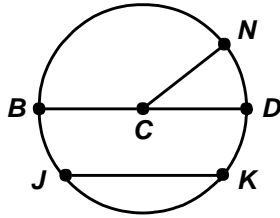
14.



Answers: Skill 21A Grade 5

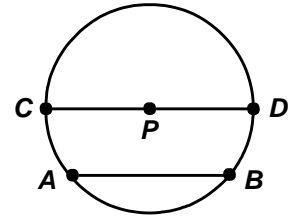
1. Directions: Use the circle to name the center, a chord, a diameter and a radius.

center: C
 chord: \overline{JK}
 diameter: \overline{BD}
 radius: \overline{CD}

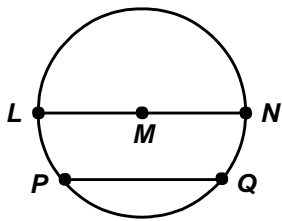


2. Directions: Name the parts of the circle below.

P center
 \overline{PD} radius
 \overline{CD} diameter
 \overline{AB} chord

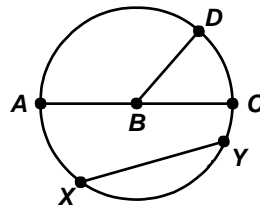


3.



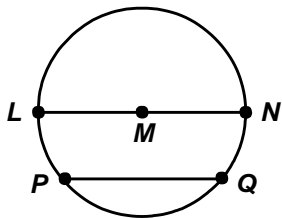
1. \overline{LN} diameter
 2. \overline{MN} radius
 3. \overline{PQ} chord
 4. M center

4.



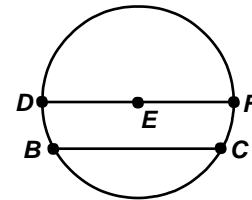
1. \overline{DB} radius
 2. \overline{AC} diameter
 3. \overline{XY} chord
 4. B center

5.



1. diameter \overline{LN}
 2. center M
 3. chord \overline{PQ}
 4. radius \overline{MN}

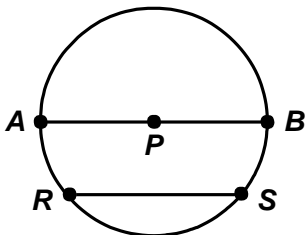
6.



1. center E
 2. chord \overline{BC}
 3. diameter \overline{DF}
 4. radius \overline{EF}

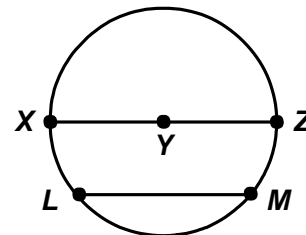
7. Draw and label a circle.

radius: \overline{PB} diameter: \overline{AB}
 chord: \overline{RS} center: P



8. Draw and label a circle.

radius: \overline{YZ} diameter: \overline{XZ}
 chord: \overline{LM} center: Y



9. 90°

10. 30°

11. 60°

12. 30°

13. 120°

14. 70°