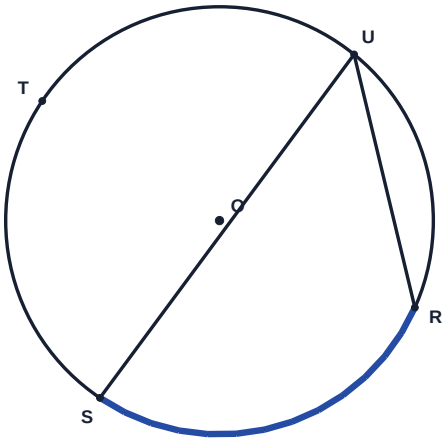


Inscribed Angles

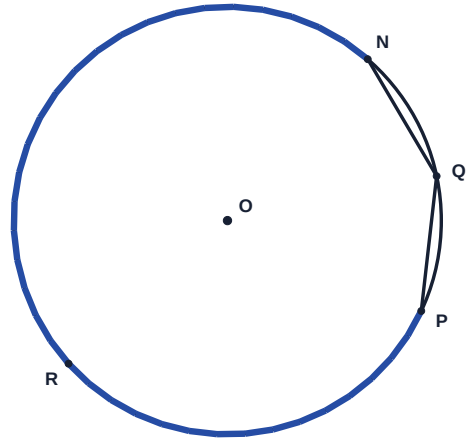
Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Name figures

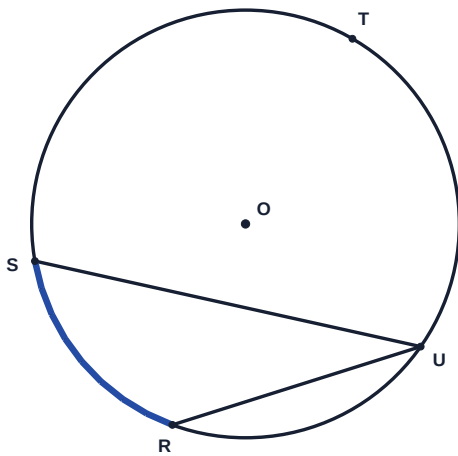
1. Name the marked inscribed angle and its intercepted arc.



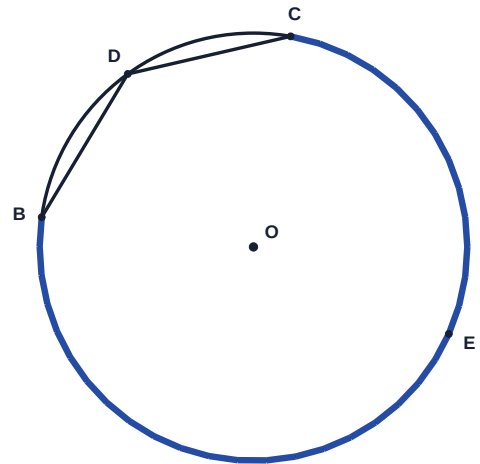
2. Name the marked inscribed angle and its intercepted arc.



3. Name the marked inscribed angle and its intercepted arc.



4. Name the marked inscribed angle and its intercepted arc.

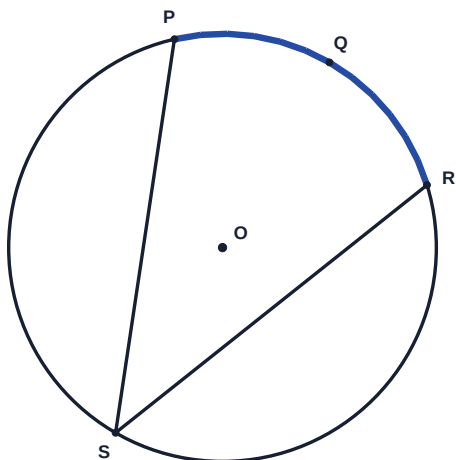


Inscribed Angles

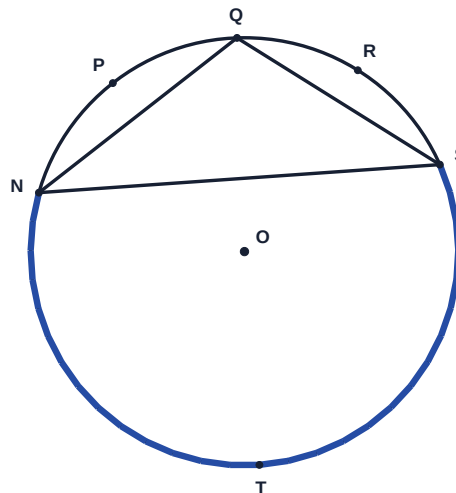
Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Find angle measures

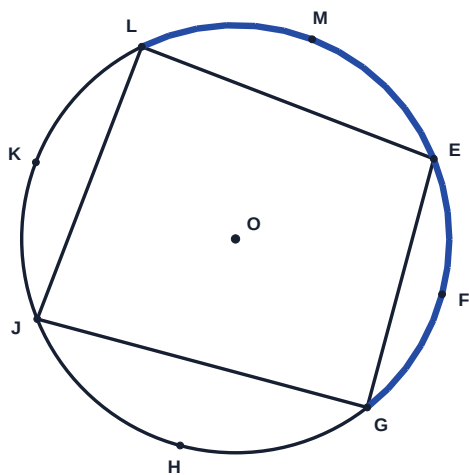
5. Intercepted arc $PQR = 86$ deg. Find angle PSR .



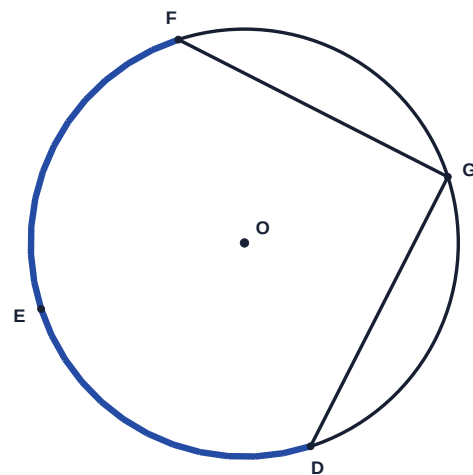
6. The intercepted arc at vertex S is 72 deg and angle N is 34 deg. Find angle Q.



7. Angle E = 96 deg. Find opposite angle J.



8. Intercepted arc $DEF = 180$ deg. Find angle DGF .

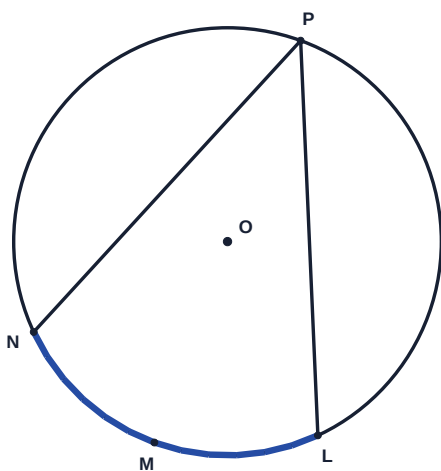


Inscribed Angles

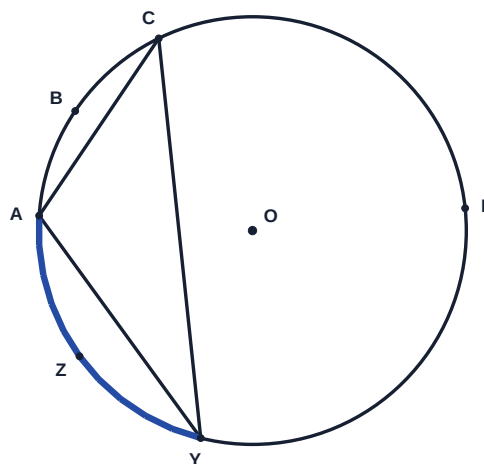
Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Find intercepted arc measures

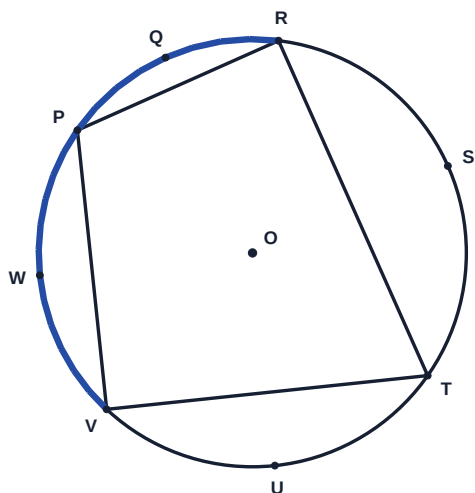
9. Angle LPN = 45 deg. Find intercepted arc LMN.



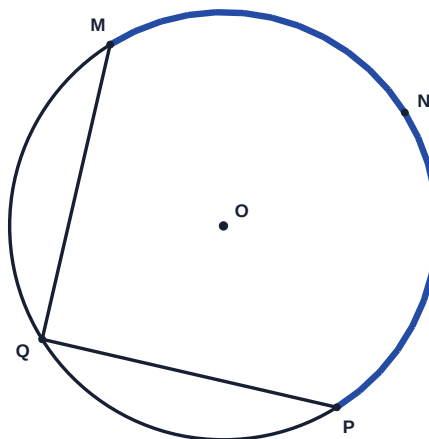
10. Angle ACY = 40 deg. Find intercepted arc YZA.



11. Angle RTV = 72 deg. Find intercepted arc VPR.



12. Angle MQP = 90 deg. Find intercepted arc MNP.



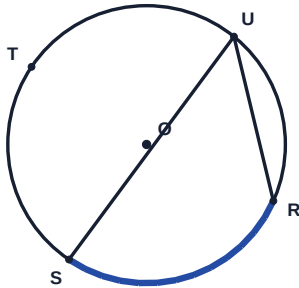
Inscribed Angles

Worked Answer Key

Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Solutions

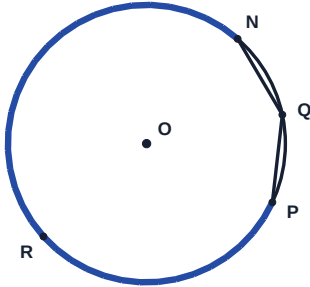
1. Name the marked inscribed angle and its intercepted arc.



Angle RUS or SUR; arc RS or SR.

An inscribed angle has its vertex on the circle; its intercepted arc excludes that vertex.

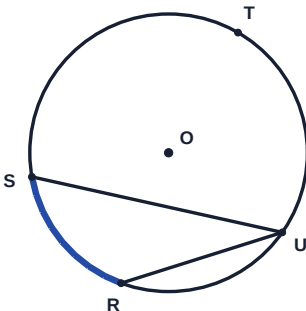
2. Name the marked inscribed angle and its intercepted arc.



Angle NQP or PQN; arc PRN or NRP.

An inscribed angle has its vertex on the circle; its intercepted arc excludes that vertex.

3. Name the marked inscribed angle and its intercepted arc.



Angle RUS or SUR; arc RS or SR.

An inscribed angle has its vertex on the circle; its intercepted arc excludes that vertex.

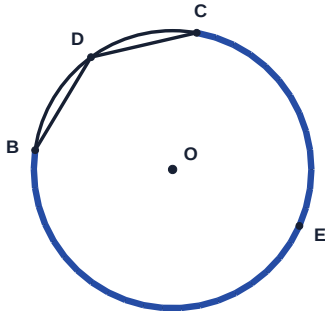
Inscribed Angles

Worked Answer Key

Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Solutions

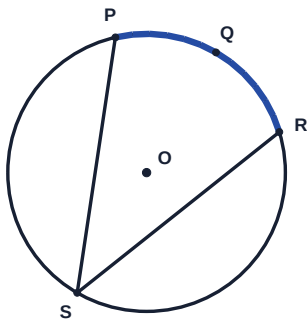
4. Name the marked inscribed angle and its intercepted arc.



Angle BDC or CDB; arc CEB or BEC.

An inscribed angle has its vertex on the circle; its intercepted arc excludes that vertex.

5. Intercepted arc PQR = 86 deg. Find angle PSR.

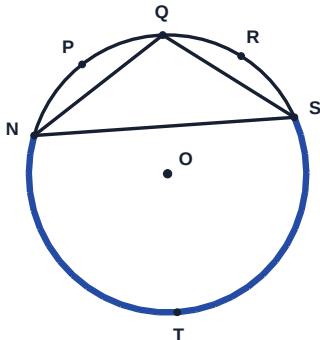


An inscribed angle is half its intercepted arc.

$$86 / 2 = 43 \text{ deg.}$$

Angle = 43 deg.

6. The intercepted arc at vertex S is 72 deg and angle N is 34 deg. Find angle Q.



$$\text{Angle } S = 72 / 2 = 36 \text{ deg.}$$

$$\text{Triangle sum: } 180 - 36 - 34 = 110 \text{ deg.}$$

Angle = 110 deg.

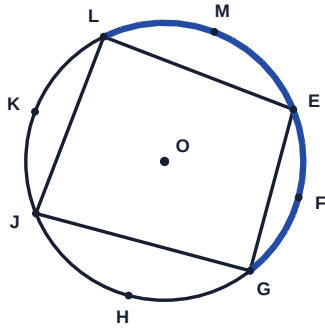
Inscribed Angles

Worked Answer Key

Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

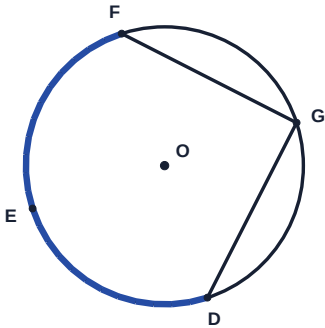
Solutions

7. Angle E = 96 deg. Find opposite angle J.



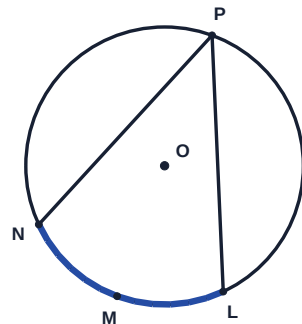
Opposite angles in a cyclic quadrilateral sum to 180 deg.
 $180 - 96 = 84$ deg.
Angle = 84 deg.

8. Intercepted arc DEF = 180 deg. Find angle DGF.



An inscribed angle is half its intercepted arc.
 $180 / 2 = 90$ deg.
Angle = 90 deg.

9. Angle LPN = 45 deg. Find intercepted arc LMN.



An intercepted arc is twice its inscribed angle.
 $2 \times 45 = 90$ deg.
Arc = 90 deg.

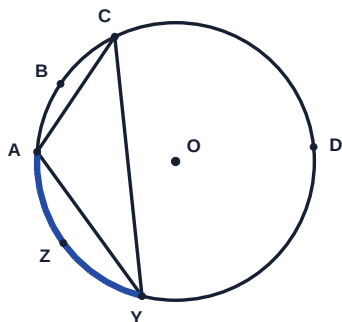
Inscribed Angles

Worked Answer Key

Name inscribed figures and use circle theorems to find missing angle or intercepted arc measures.

Solutions

10. Angle $ACY = 40$ deg. Find intercepted arc YZA .

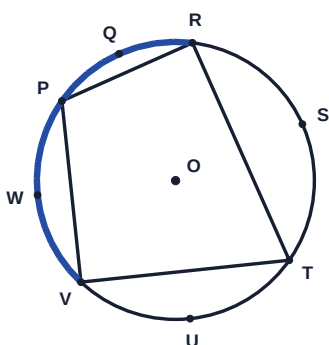


An intercepted arc is twice its inscribed angle.

$$2 \times 40 = 80 \text{ deg.}$$

Arc = 80 deg.

11. Angle $RTV = 72$ deg. Find intercepted arc VPR .

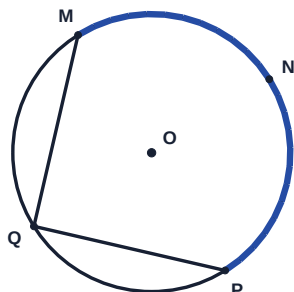


An intercepted arc is twice its inscribed angle.

$$2 \times 72 = 144 \text{ deg.}$$

Arc = 144 deg.

12. Angle $MQP = 90$ deg. Find intercepted arc MNP .



An intercepted arc is twice its inscribed angle.

$$2 \times 90 = 180 \text{ deg.}$$

Arc = 180 deg.