Section 8. 3: Circle Properties reasoning

(ins/cent <, $\overset{\frown}{\ }$)

(ins<, $\overset{\frown}{\ }$)

(ins <, dia)

(CyQuad)

(SATT)

(ITT)

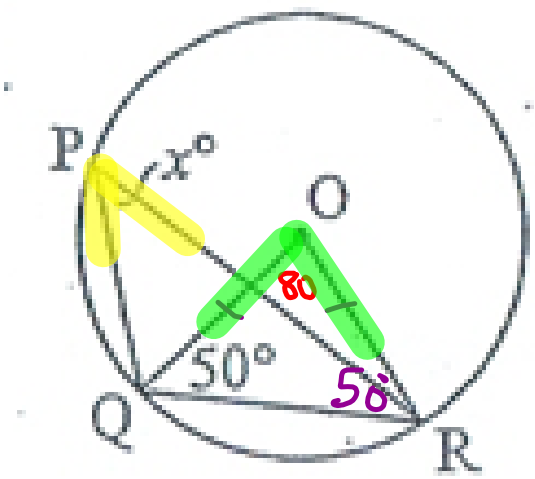
(SAT)

(OAT)

(CyAT)

Find the unknown angles. State reasons.

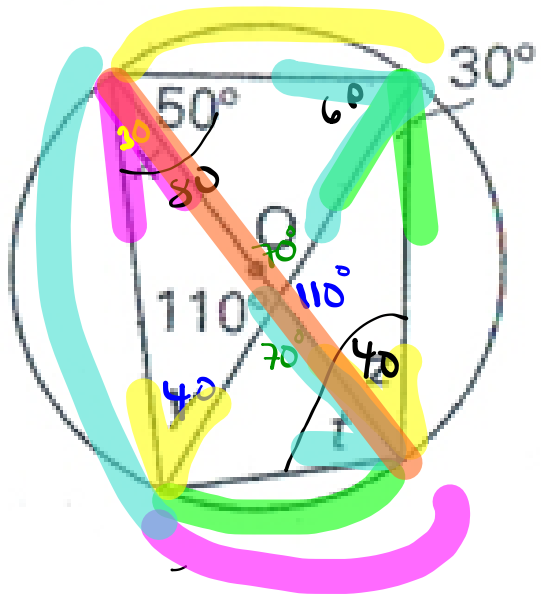
3.



$\angle ORQ = 50°$ (ITT)

$\angle QOR = 80°$ (SATT, QR)

$x \rightarrow \angle QPR = 40°$ ins/cent>Qr)



$x = 30°$ (ins >)

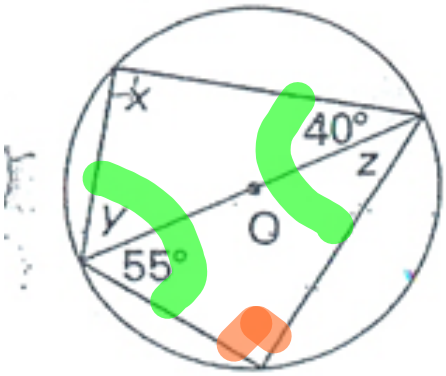
$y = 40°$ (SATT)

$z = 40°$ (SATT) (in, >>)

$t = 60°$ (cy quad)

Examples

1.



X= 90° (ins<, dia)

y= 50^0 (SATT)

z = 35° (SATT)

(cylic quad)

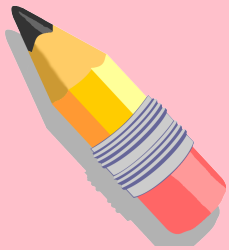
Homework:

p.410 - 412

3 (ins/cent <, $\overset{\frown}{\ }$)

4

5 (ins<, $\overset{\frown}{\ }$)



6 (ins <, dia)

9 (CyQuad)

11

(SATT)

(ITT)

(SAT)

(OAT)

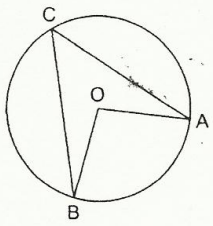
(CyAT)

Angle Practice

Name: _____

2. In each circle, name a central angle and an inscribed angle subtended by the same arc. Shade the arc.

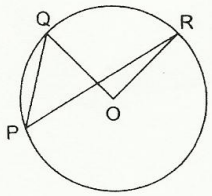
a)



Central angle: ∠_____

Inscribed angle: ∠_____

b)

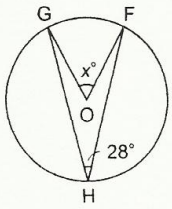


Central angle: ∠_____

Inscribed angle: ∠_____

3. Determine each indicated measure.

a)

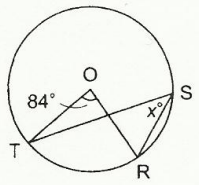


$\angle GOF = 2 \times \angle GHF$

$x° = 2 \times$ _____

$=$ _____

b)

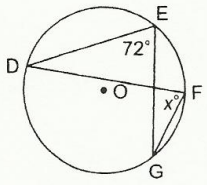


$\angle TSR = \frac{1}{2} \times \angle$_____

$x° = \frac{1}{2} \times$ _____

$x° =$ _____

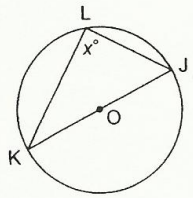
c)



$\angle DEG =$ _____

$x° =$ _____

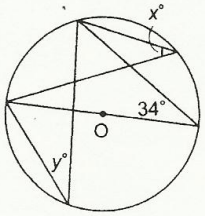
d)



$x° =$ _____

4. Determine each value of $x°$ and $y°$.

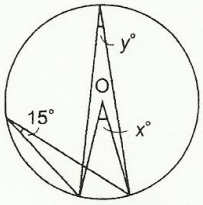
a)



$x° =$ _____

$y° =$ _____

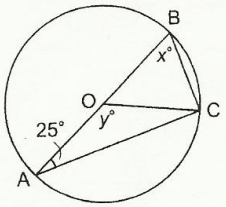
b)



$x° =$ _____ $\times$ _____ $=$ ___

$y° =$ _____

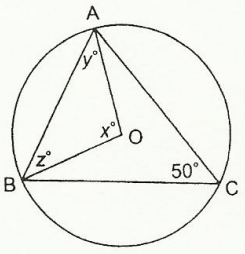
5. Find the value of $x°$ and $y°$.



$x° =$ _____

$y° =$ _____

6. Find the value of $x°$, $y°$, and $z°$.



$x° =$ _____

$y° =$ _____

$z° =$ _____

Attachments

Worksheet - Angles in a Circle.doc