TEST Tomorrow

Warm Up

$m = \angle AED = \underline{90°}$ (ins $\angle$, dia)

$f = \angle BAD = \underline{54°}$ (Cy Quad)

$g° = \angle BOD = \underline{108°}$ (SAT)

(ins/cent)

$\overset{\frown}{BD}$,

A

B

f° 54   54

72

O   g° 108   126   C

m°

E   D
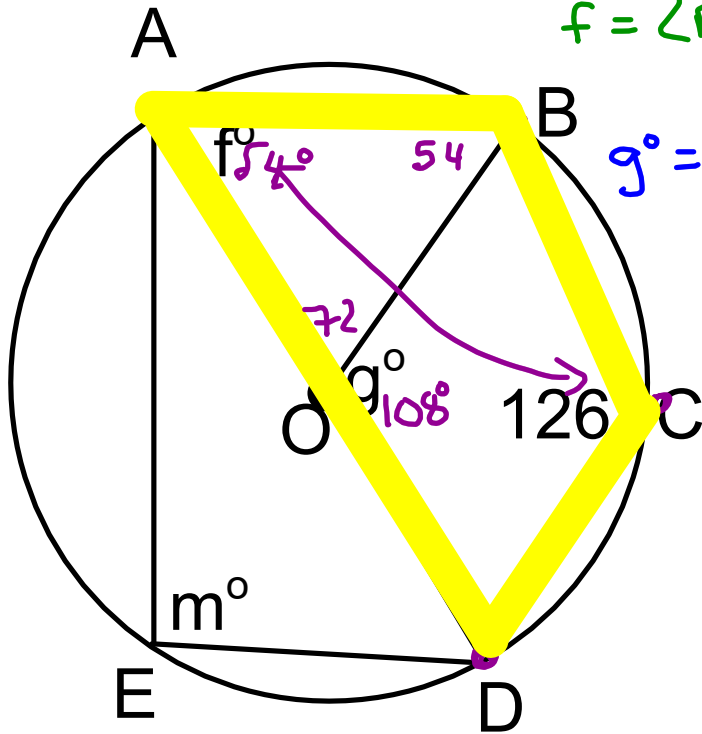
Warm Up

Do on your own
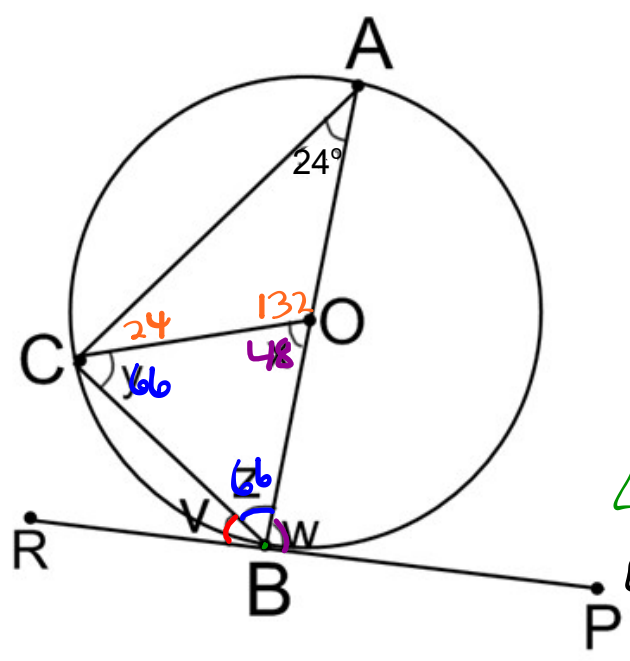
$\angle CAB = 24°$ (ins)

$x° = \angle COB = 48°$ (ins /cent, $\overset{\frown}{CB}$)

$\angle z = \angle OBC$ $= 66°$ (Itt)
$\angle y = \angle OCB$

$\angle w = \angle OBP = 90°$ (Tang P)

$\angle V = \angle CBR = 24°$ (SAT)
                              (CAT)
                              (Tang P)

Diagram labels:
A
24°
132
O
C 24 48
66
66
V W
R
B
P

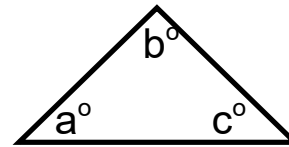# Chapter 8: Notes

Pythagorean theorem
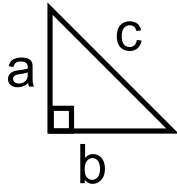
Hyp = ?
$$c^2 = a^2 + b^2$$

Leg = ?
$$a^2 = c^2 - b^2$$

Angle Sum of Triangle Theorem

(SATT)
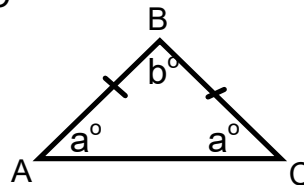

$$a^\circ + b^\circ + c^\circ = 180^\circ$$

Isosceles Triangle Theorem   (ITT)

Two sides are equal :   AB = BC

Base angles are equal:

< A = <C

If a° = ?

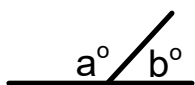$$a^\circ = \frac{180 - b}{2}$$

If b° = ?

b°= 180 -a°-a°

Angle Properties

Supplementary Angle Theorem   (SAT)
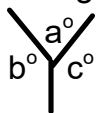

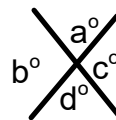$$a^\circ + b^\circ = 180^\circ$$

Complimentary Angle Theorem   (CAT)

$$a^\circ + b^\circ = 90^\circ$$

Cyclic Angle Theorem   (CyAT)
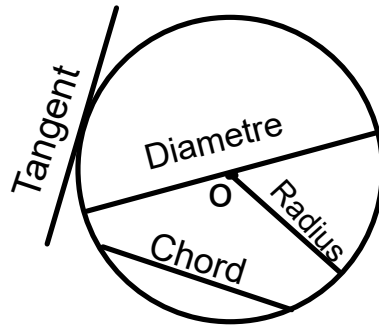

$$a^\circ + b^\circ + c^\circ = 360^\circ$$

Opposite Angle Theorem   (OAT)

a° = d°

b° = c°

Information about circles

Tangent

Diametre

O

Radius

Chord

Tangent Property

$$< \underline{\quad} = 90^o \text{ (Tang P)}$$

- a radius hits a
tangent at 90°
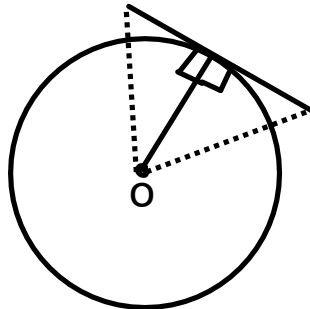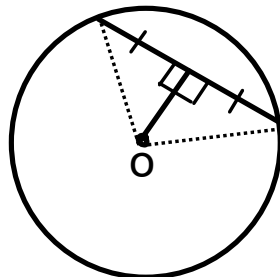
To solve unknown sides :

       Pythagorean Theorem

To solve unknown angles :

       SATT

O

Chord Property

If chord lengths are indicted

$$<\underline{\quad} = <\underline{\quad} = 90^o \text{ (Chord P)}$$

a line coming from the centre of
the circle

- hits chord at a 90° angle

If 90° is indicated

$$\underline{\quad} = \underline{\quad}\text{(Chord P)}$$

- cuts the chord into two
equal pieces

O

To solve unknown sides :

       Pythagorean Theorem

To solve unknown angles :

       SATT

       ITT

Identify radii

$$\underline{\quad} = \underline{\quad}=\underline{\quad}\text{(Radii)}$$

Circle Properties

Central Angle
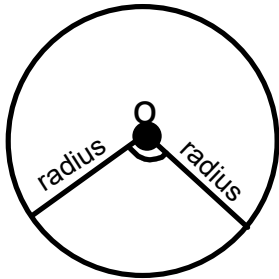
Inscribed Angle
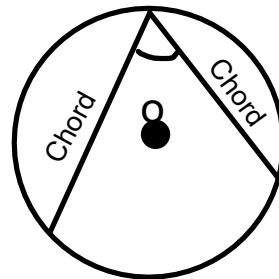
Property # 1: Central & Inscribed Angles

< ____ = __° (ins/cent >, ⌒)
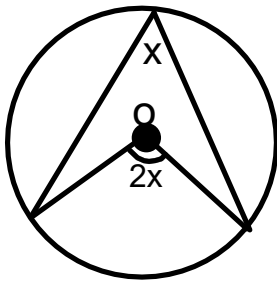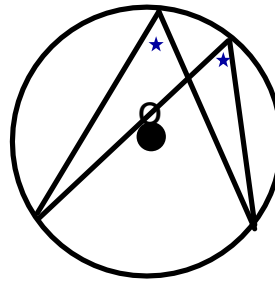
- The central angle is double the inscribed angle

- The inscribed angle is half the central angle

Property # 2: Inscribed Angles

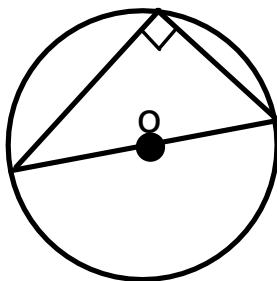< ____ = __° (ins >, ⌒)

- Inscribed angles coming from the same arc are equal

Property # 3: Inscribed from Diameter

< ____ = __° (ins >, diam)

- Inscribed angles coming from the diametre are 90°

Property # 4: Cyclic Quadrilateral

< ____ = __° (CyQuad)
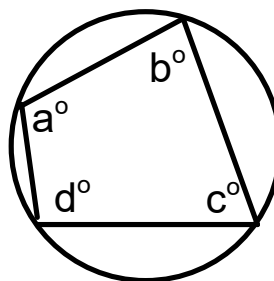
- Opposite angles in a cyclic quad must add up to 180°

$$a° + c° = 180°$$

$$b° + d° = 180°$$

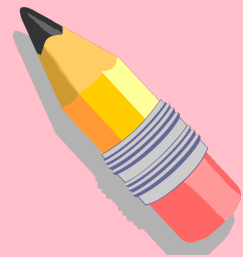| (SATT) | < ___ = 90° (Tang P) | < ___ = __° (ins/cent >, ⌒) |
(ITT)		
(SAT)	< ___ = < ___ = 90° (Chord P)	< ___ = __° (ins >, ⌒)
(CAT)		
(OAT)	___ = ____ (Chord P)	< ___ = __° (ins >, diam)
(CyAT)		< ___ = __° (CyQuad)
(EAT)	___ = ____ = ___ (Radii)	

Homework:

TEST Tomorrow

Extra Practice WS

&

Worksheet 6.3 (Front and back)

Pick and choose your questions you need to do