

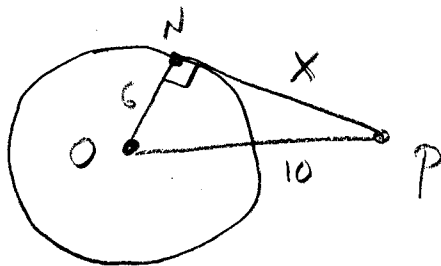
BE $\Rightarrow$ Geometry 1 | Wednesday 2-2-11

① TAKE OUT homework.

② PASS OUT compass/straight edge
& 3 white sheets of paper

Geometry I - HW Review Pg 556 #8, 9, 12, 14, 15
Pg 557 # 29, 30

(12) $X = ?$

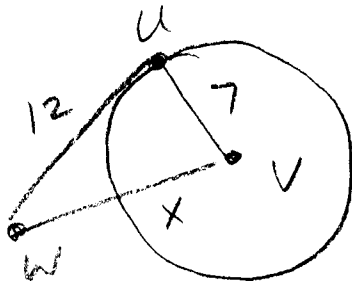


$$X^2 = 10^2 - 6^2$$

$$X = \sqrt{64}$$

$$\boxed{X = 8}$$

(14)



Assume $\overline{WU}$ tangent to $\odot V$

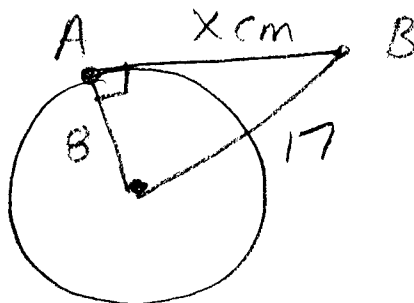
$$\therefore m\angle U = 90^\circ$$

$$\therefore X^2 = 12^2 + 7^2$$

$$X^2 = 144 + 49$$

$$\boxed{X = \sqrt{193}}$$

(15)



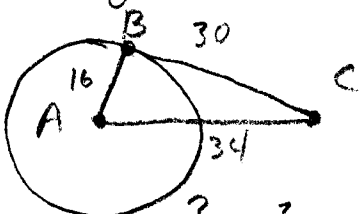
$$17^2 - 8^2 = X^2$$

$$289 - 64 = X^2$$

$$225 = X^2$$

$$\boxed{15 = X}$$

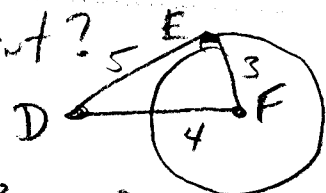
(8) tangent?



$$34^2 \stackrel{?}{=} 16^2 + 30^2$$

$$1156 = 256 + 900 \quad \boxed{\text{Yes}}$$

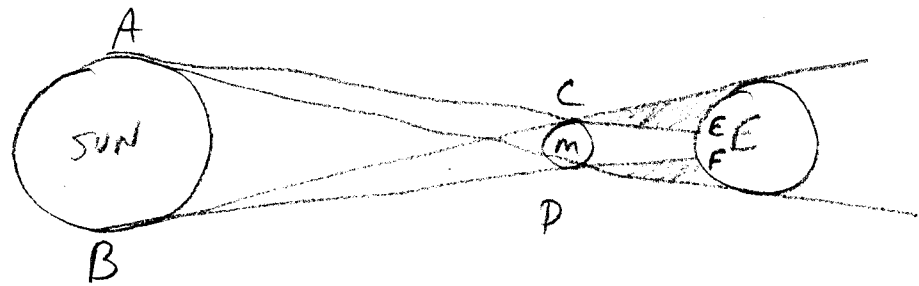
(9) tangent?



$$4^2 = 5^2 + 3^2$$

$$16 \neq 25 + 9 \quad \boxed{\text{No}}$$

29

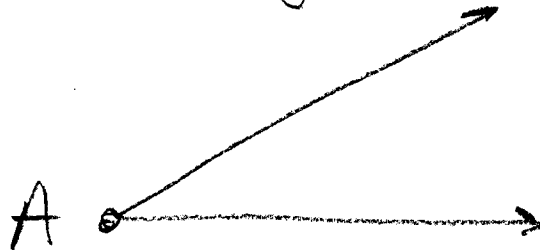


Total Eclipse $\Rightarrow \overline{AE}$ and $\overline{BF}$

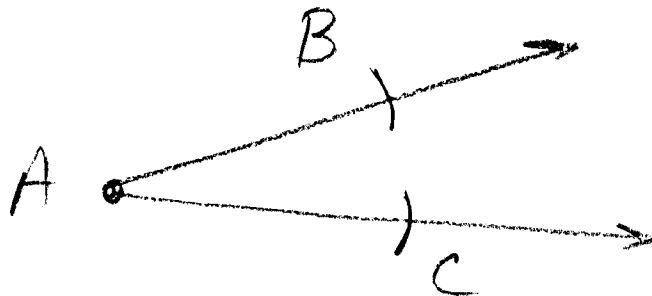
Partial Eclipse $\Rightarrow \overline{AD}$ and $\overline{BC}$

CONSTRUCTION - Bisect an Angle (Pg 33)

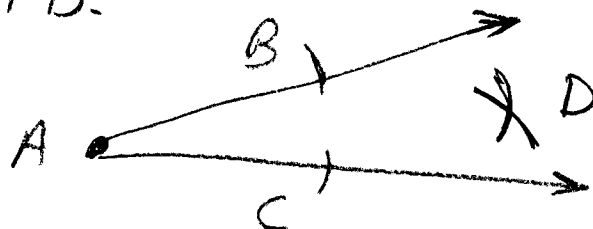
- ① Draw an angle, label vertex as A.



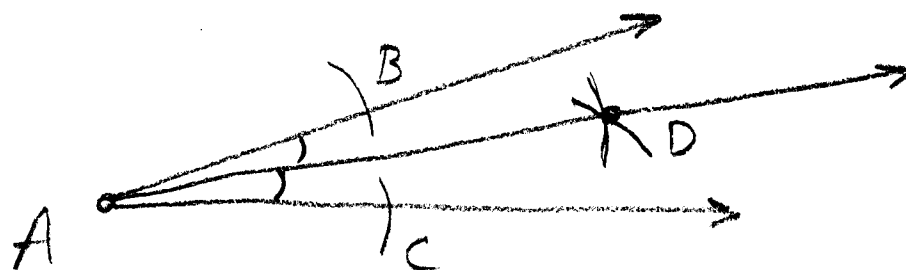
- ② Put compass at A and draw arc that intersects both sides of $\angle A$. Label intersections B, C.



- ③ With compass at B, draw arc on interior of $\angle A$. Keep same compass setting and with compass at C draw an intersecting arc. Label D.



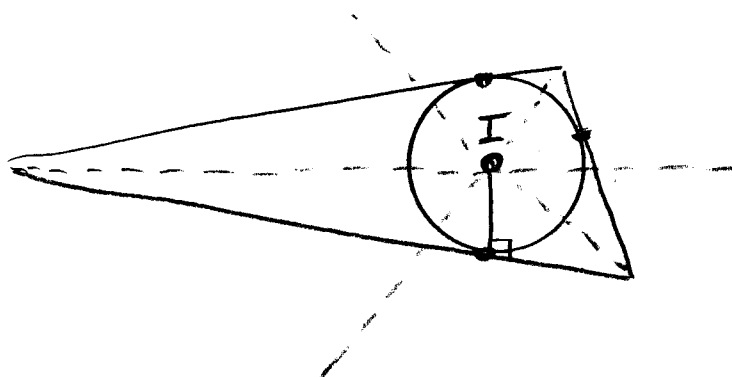
Finally, draw $\overline{AD}$, the bisector of $\angle A$.



$$m\angle BAD = m\angle CAD$$

in center of
a triangle

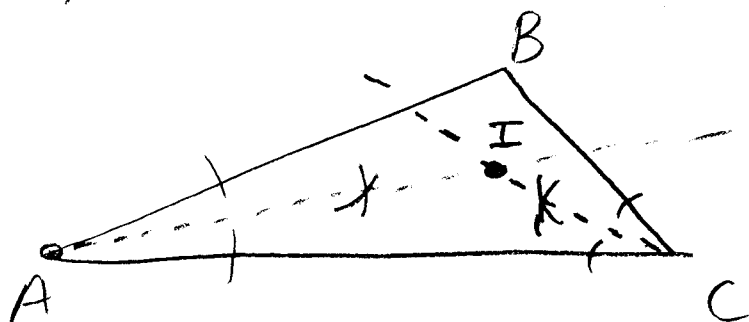
the point at which
the 3 angle bisectors
of a Δ meet. It
is equidistant from the
sides of the $\Delta \Rightarrow$ use
to inscribe a $\odot$ in a Δ



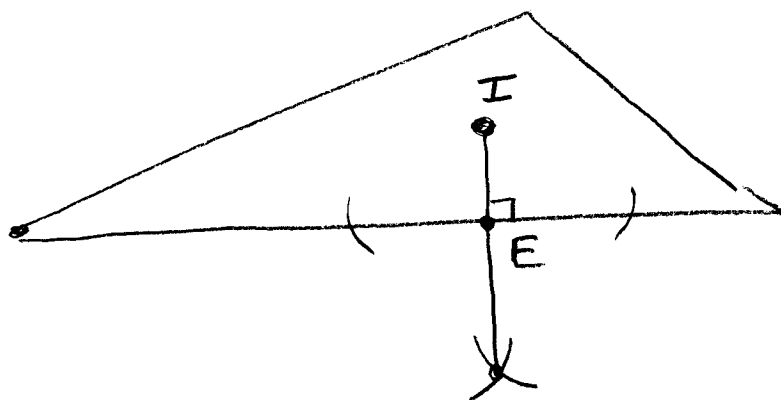
Inscribed Circle (Pg 559)

(in a triangle)

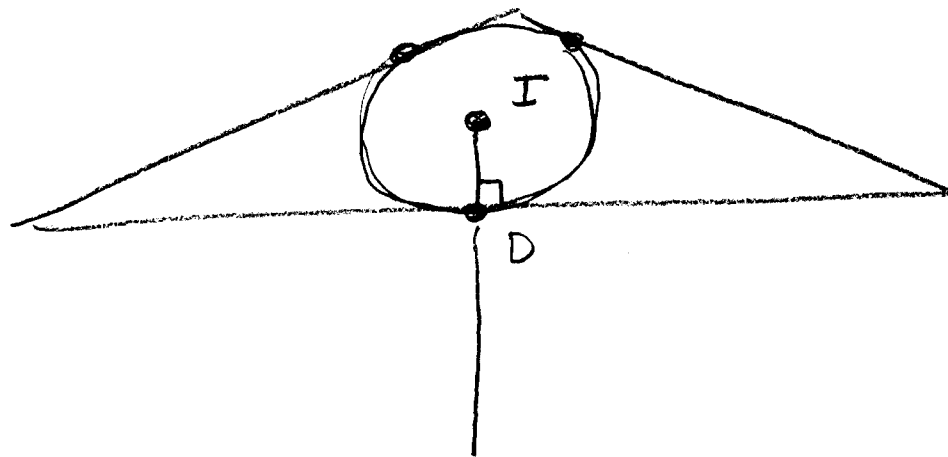
- ① Draw a $\triangle$ and label vertices A, B, C. Construct at least 2 angle bisectors to locate the incenter.



- ② Construct a line segment $\perp$ to a side of $\triangle ABC$ through incenter. Label E.



- ③ Use compass to measure $\overline{IE}$,
 put compass AT I AND draw
 circle (inscribed $\odot$)



The triangle is circumscribed about the circle.

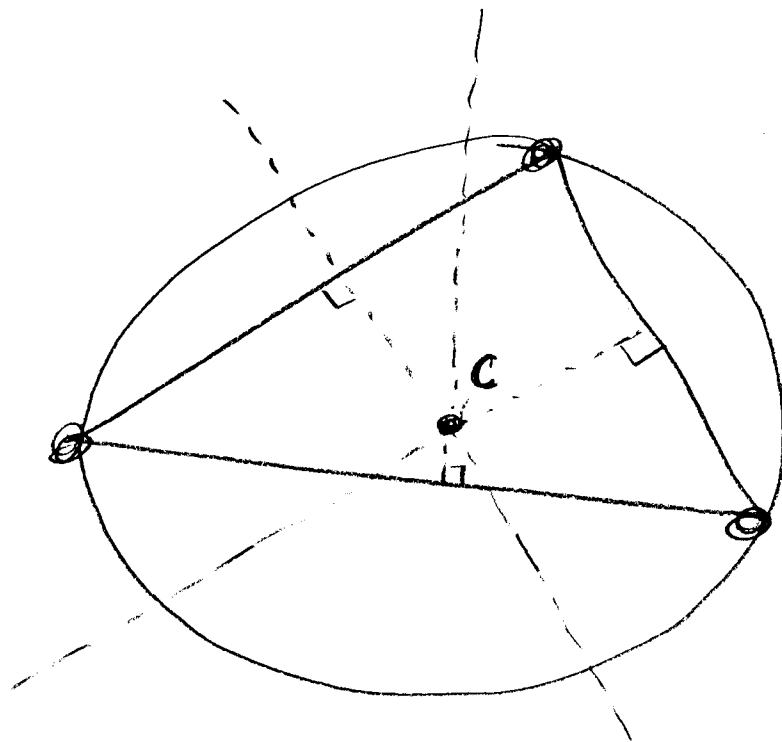
The circle is inscribed in the Δ .

I = incenter = intersection of
 the 3 $\angle$ bisectors.

Every Δ has a circle which
 can be inscribed.

Circumcenter of
a triangle

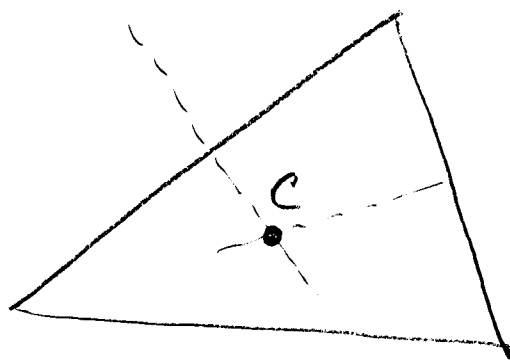
the intersection
of the perpendicular
bisectors of a Δ .
It is equidistant
from the 3
vertices $\Rightarrow$ use to
circumscribe $\odot$ around Δ



Circumscribed Circle (Pg 559)

(Around A triangle)

- ① Draw $\triangle$, label A, B, C
- ② Construct at least 2 perpendicular bisectors to locate circumcenter C



- ③ With compass AT C AND ONE VERTEX, draw the circle that circumscribes the $\triangle$

