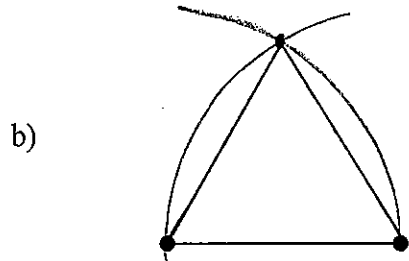
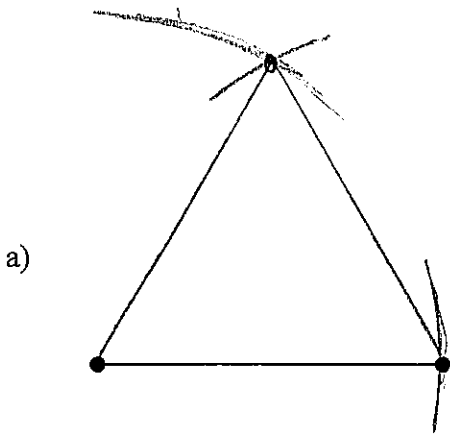


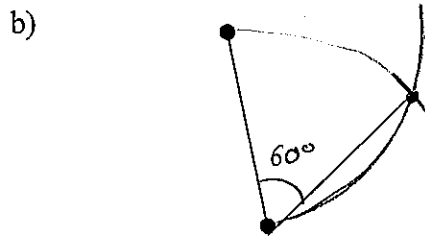
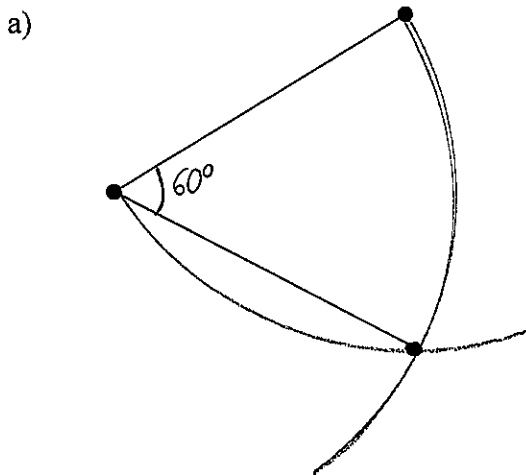
Geometry
 Constructions- Equilateral Triangles

Name _____
 Date _____

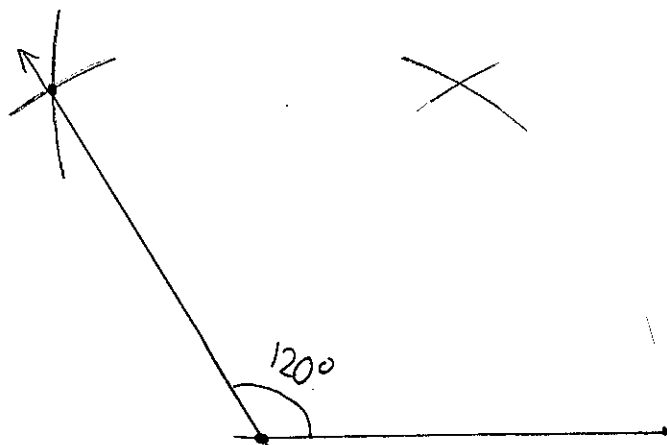
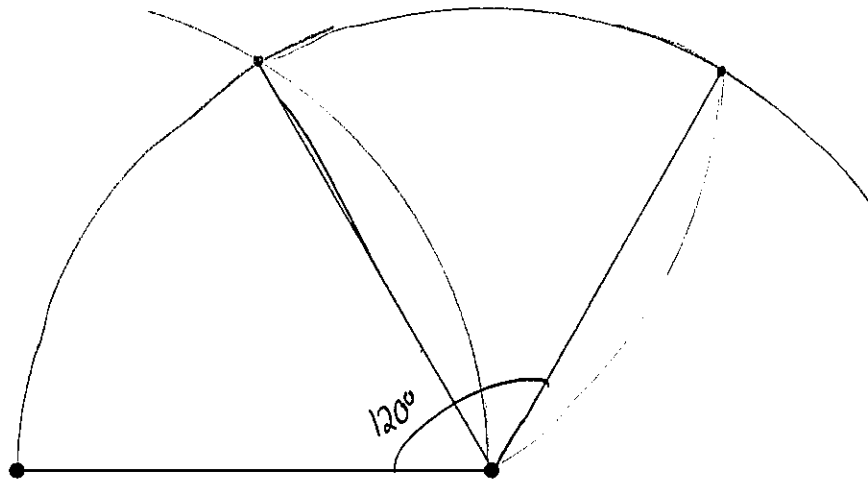
1. Construct an equilateral triangle using the segment below as a side.



2. Construct a 60 degree angle on the line segment given below.



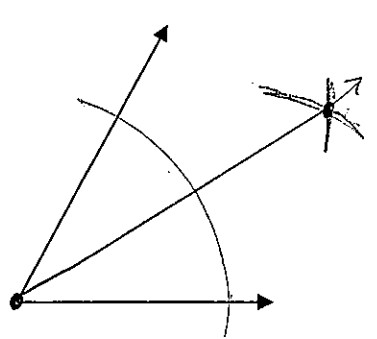
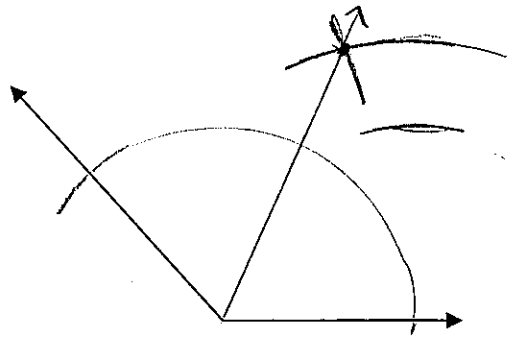
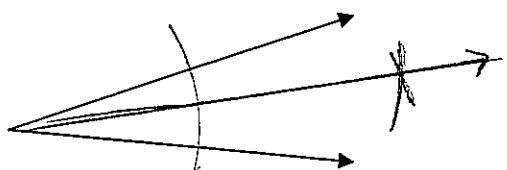
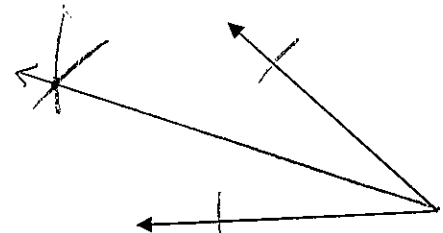
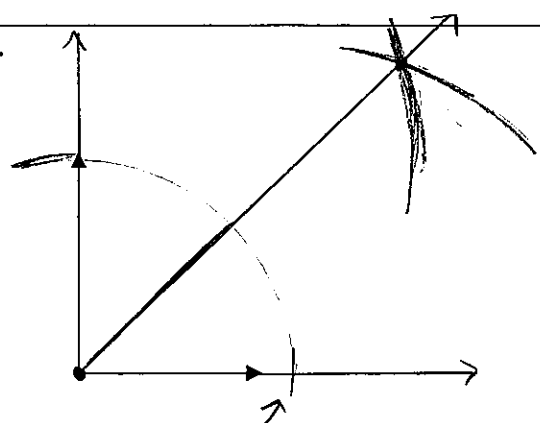
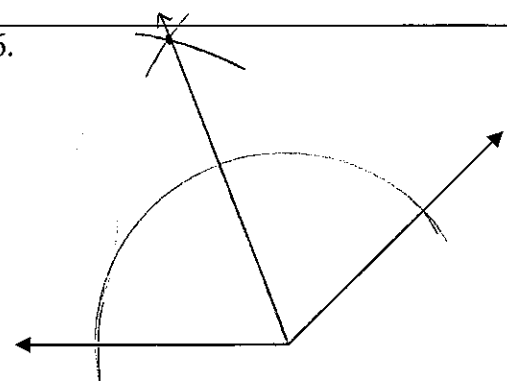
3. Construct a 120 degree angle on the given segment below.



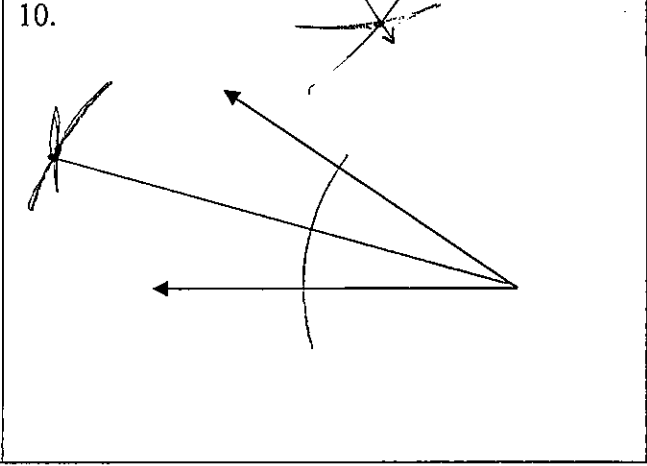
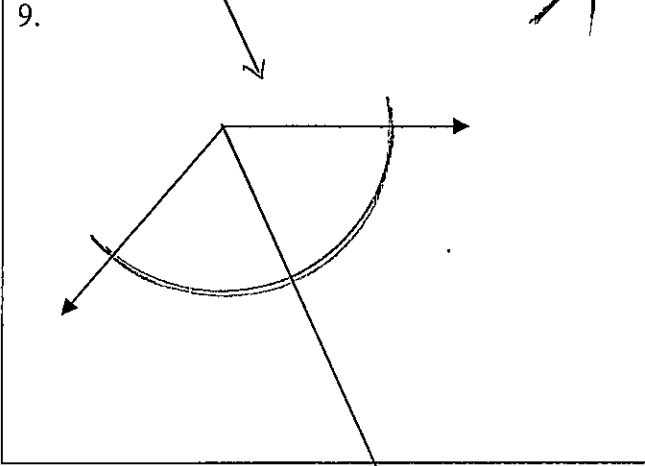
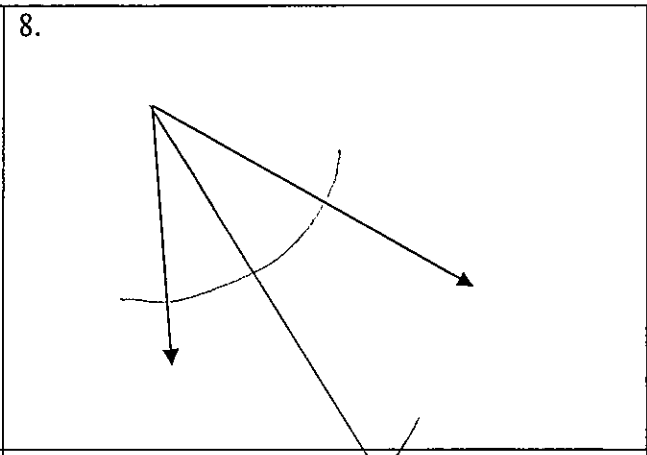
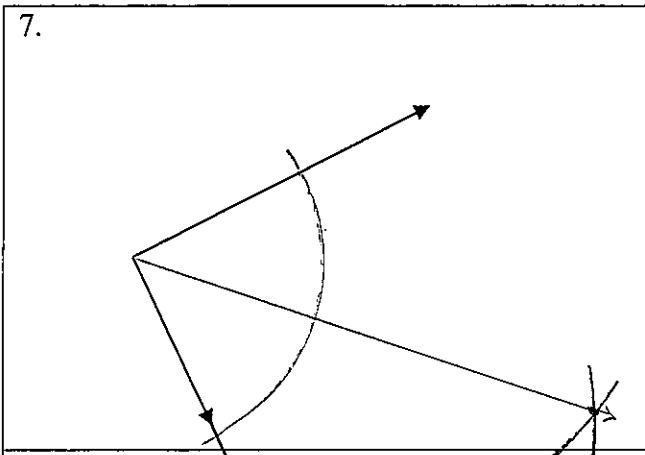
Geometry
Constructions- Angle Bisectors

Name _____
Date _____

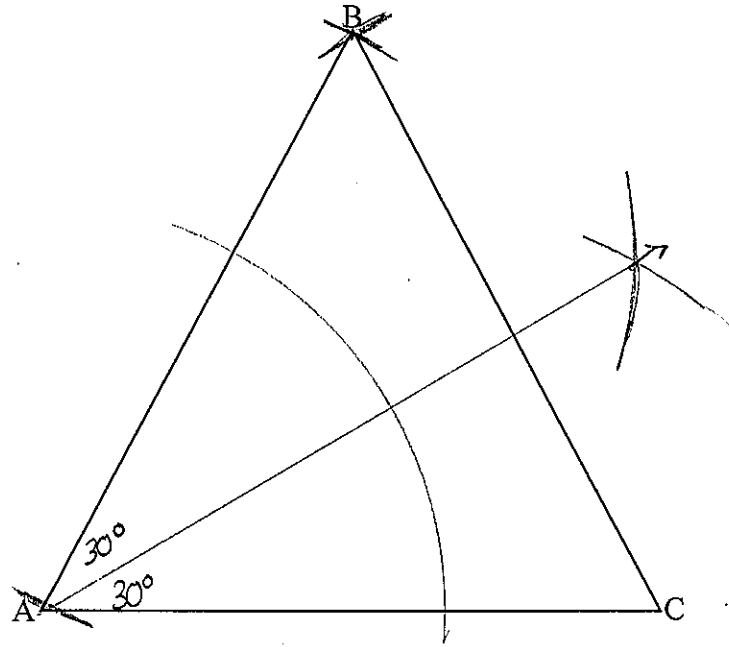
Directions: Construct angle bisectors for the following angles.

1. 	2. 
3. 	4. 
5. 	6. 

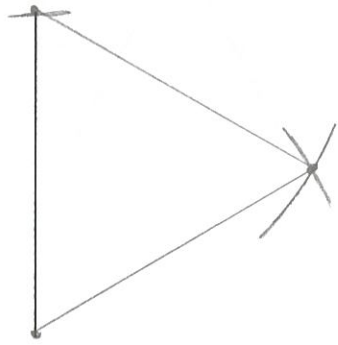
*you can
extend
lines if
needed*



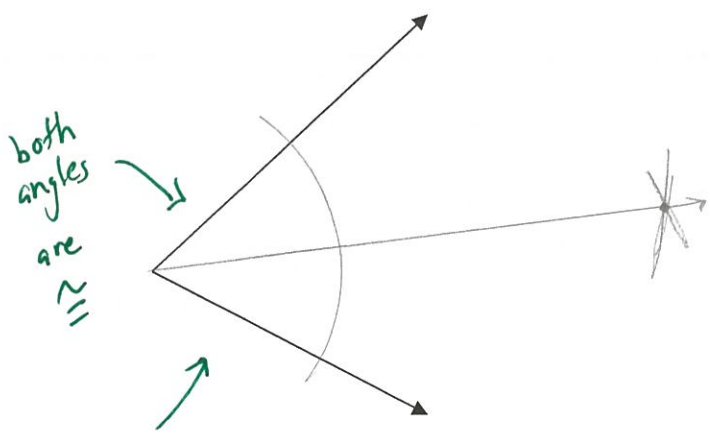
3. Given triangle ABC, construct the angle bisector for angle A. What is the measure of that angle?



1. Construct an equilateral triangle using the segment below as a given length.



2. Construct the angle bisector for the given angle below.

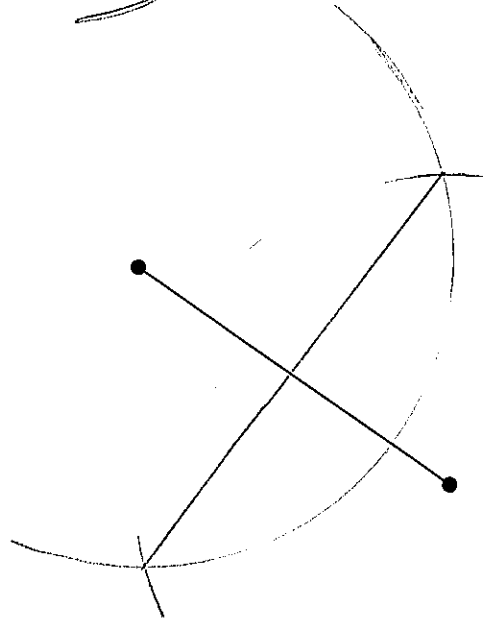
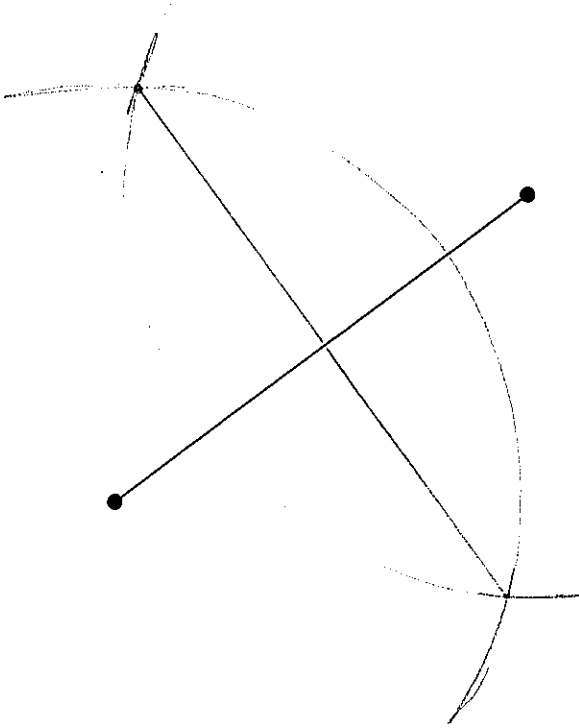
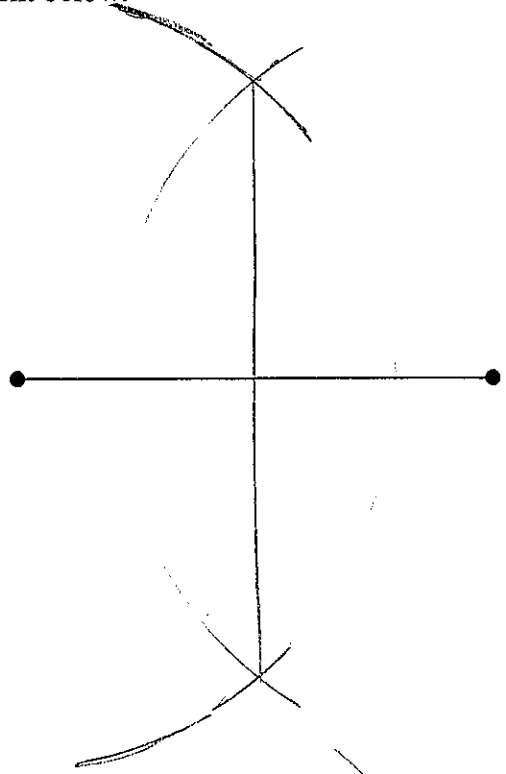
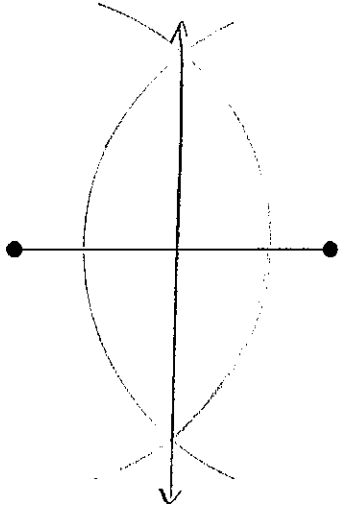


What conclusions can you make about the angles that you have constructed?

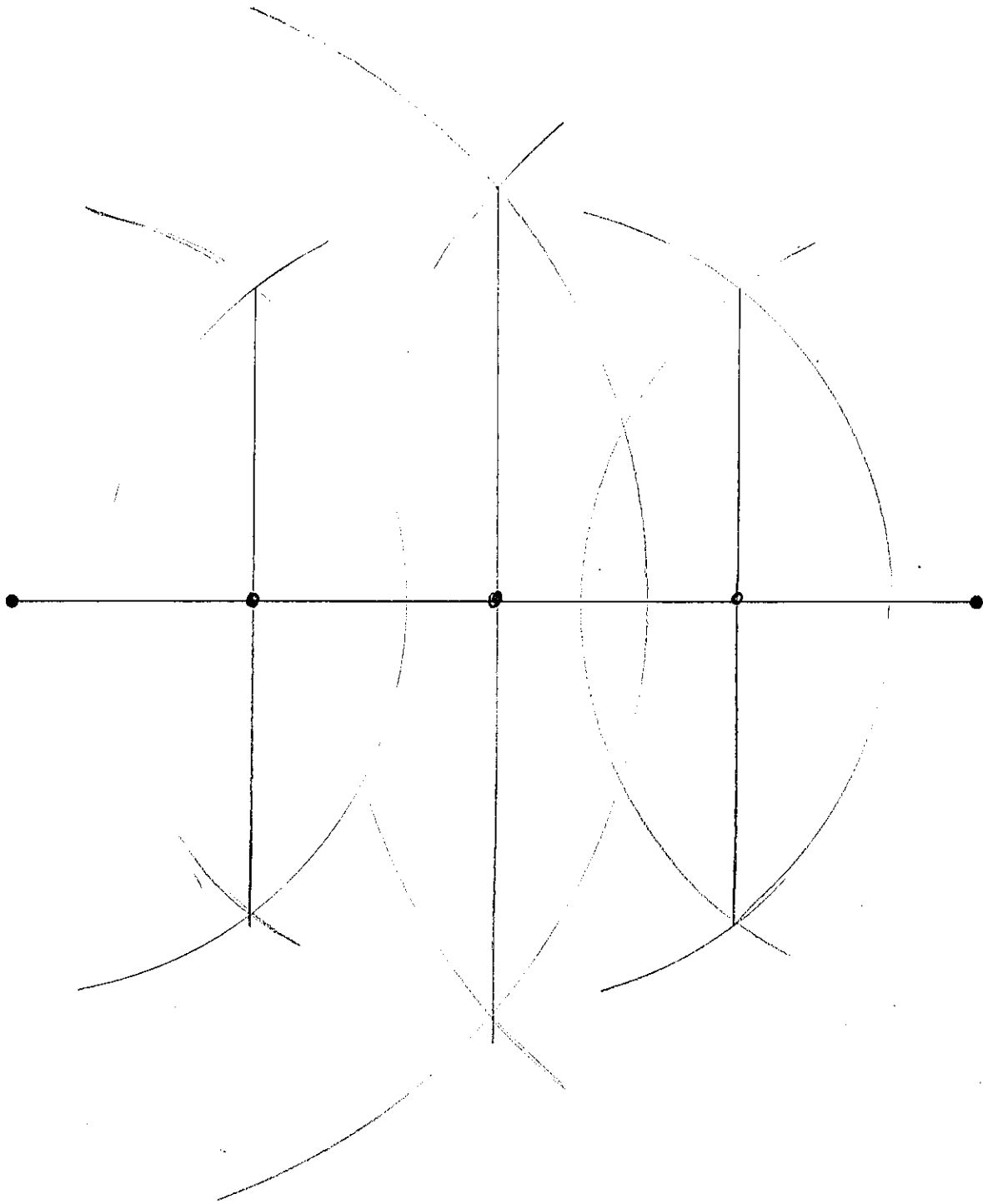
Geometry
Constructions- Perpendicular Bisector

Name _____
Date _____

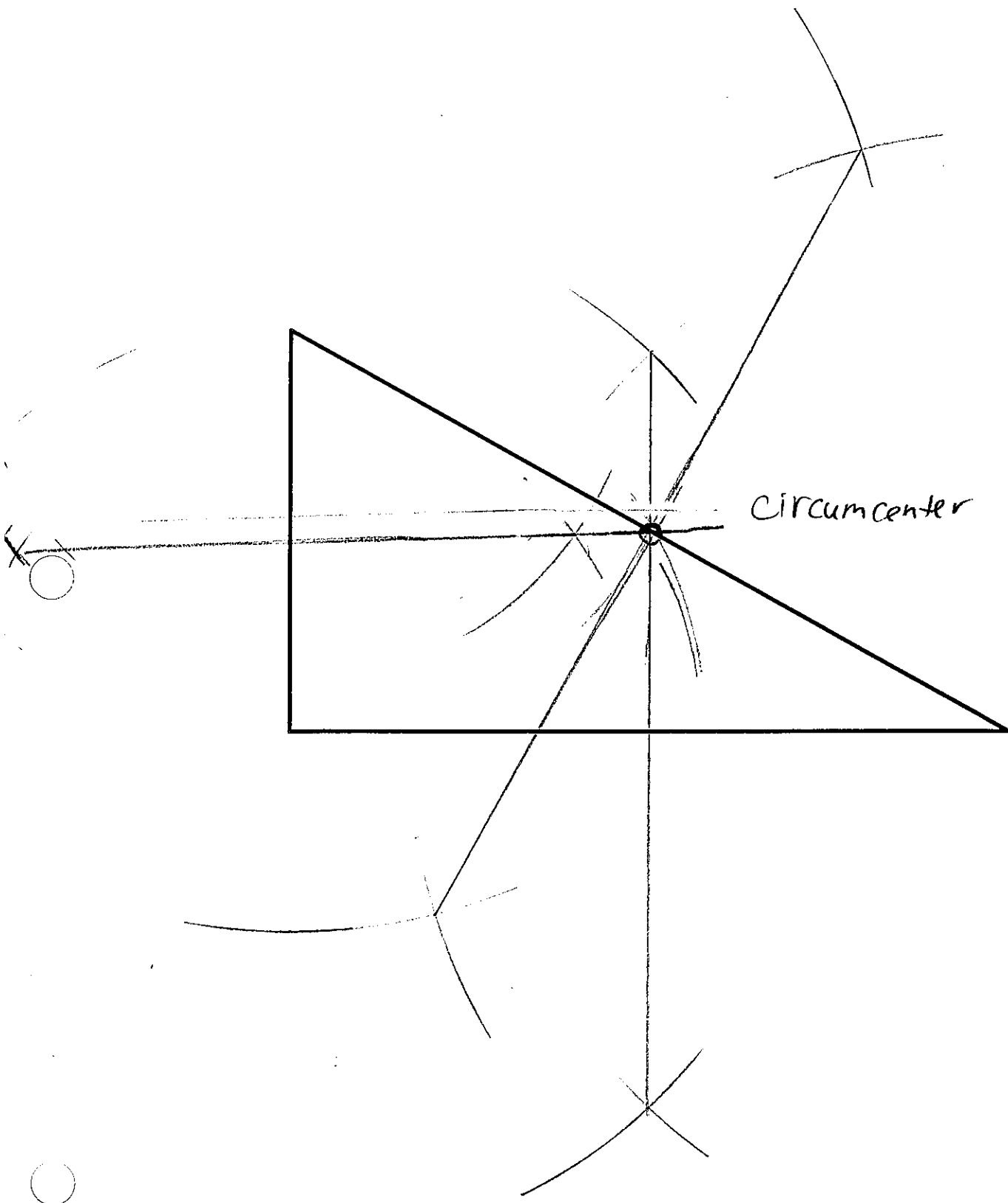
Construct the perpendicular bisector for each line segment below.



Using a compass and straightedge, break the following line segment up into 4 congruent pieces.



Construct the perpendicular bisector of all 3 sides of the triangle below.



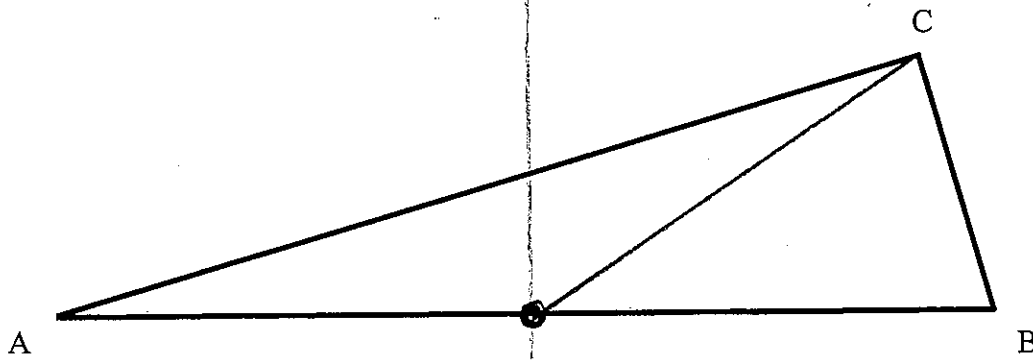
Using a compass and straightedge, locate the midpoint for the following line segments



What is the median of a triangle?-

Using a compass and straightedge, construct the median to side AB.

from a vertex to the middle



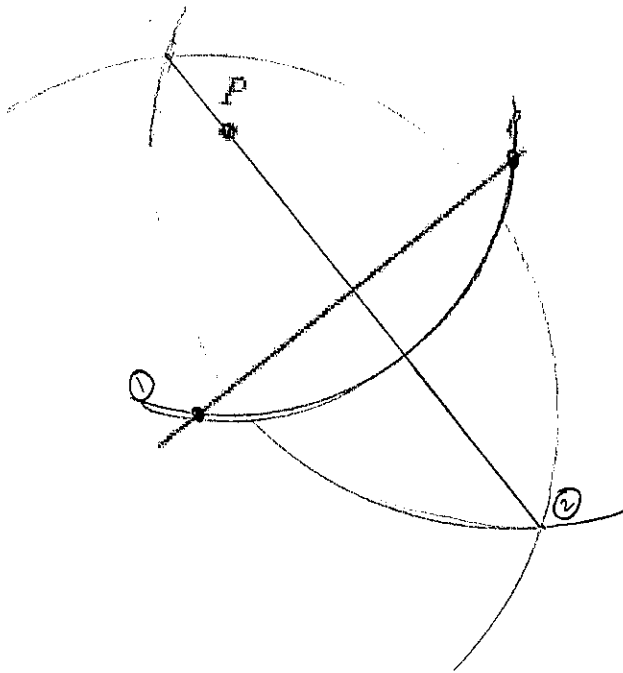


Geometry
 Constructions- Perpendicular Through a Point

Name _____
 Date Fri 12/13/19

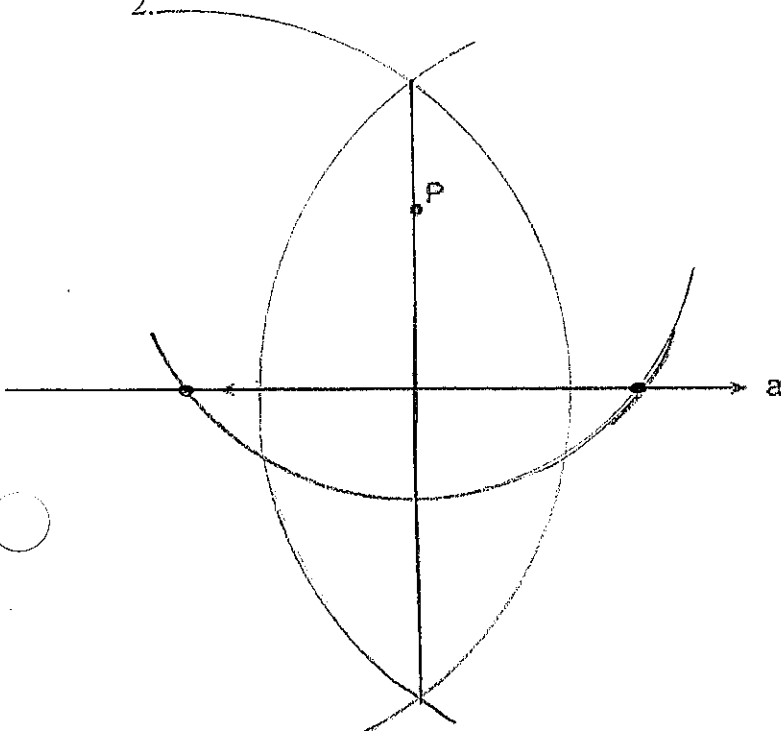
Directions: Using a compass and straight-edge, construct a line perpendicular to the given line and passing through the given point.

1.

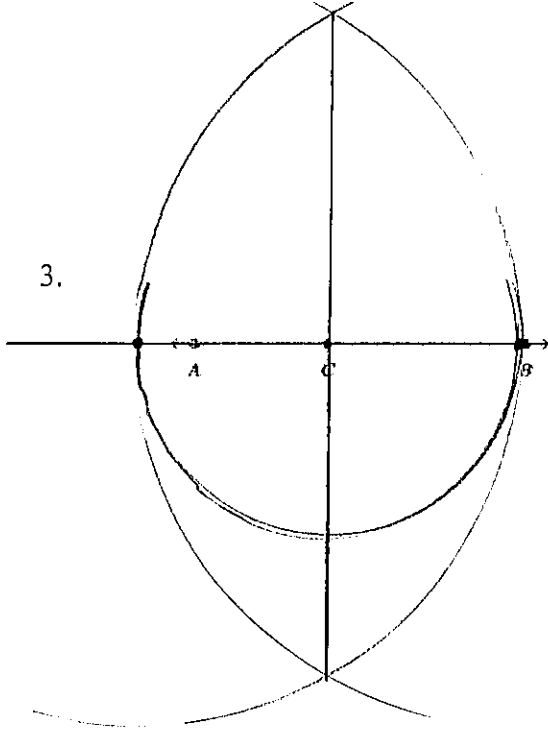


- ①-use given point to make an arc, hitting the line at 2 points.
- ② use these 2 points and make a \perp bisector

2.

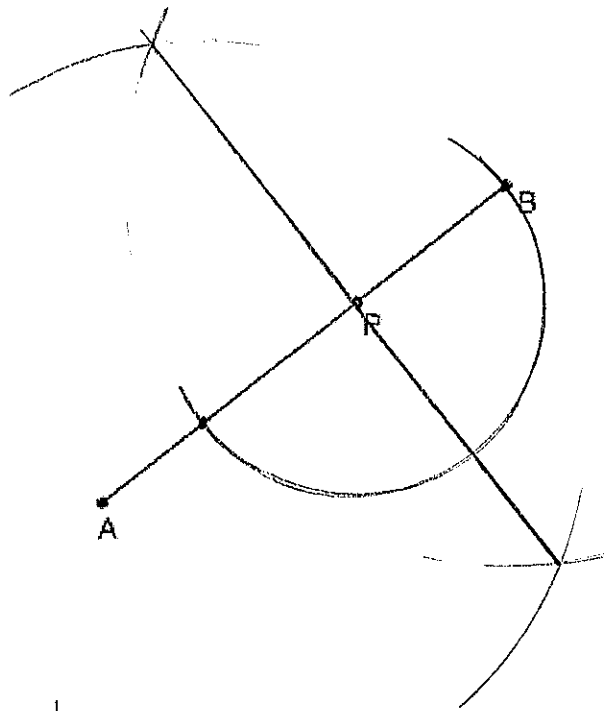


3.

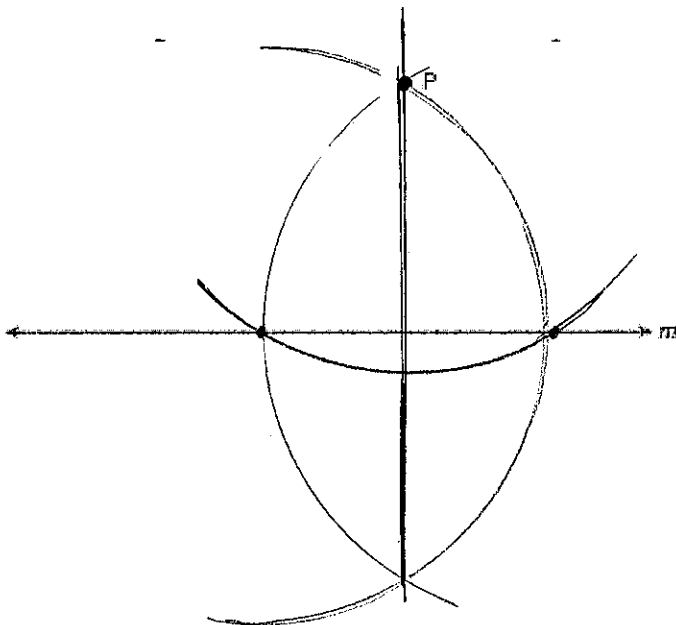


- use point C to
make an
arc

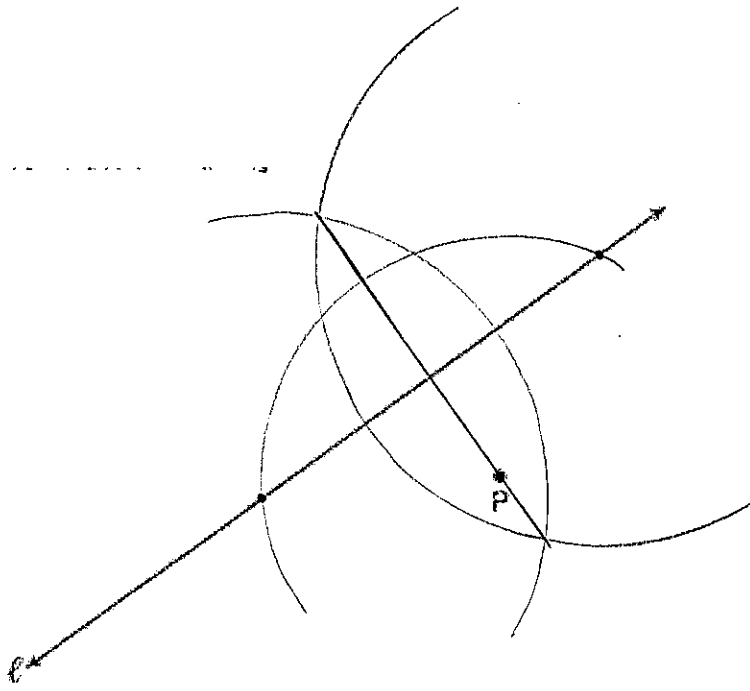
4.



5.

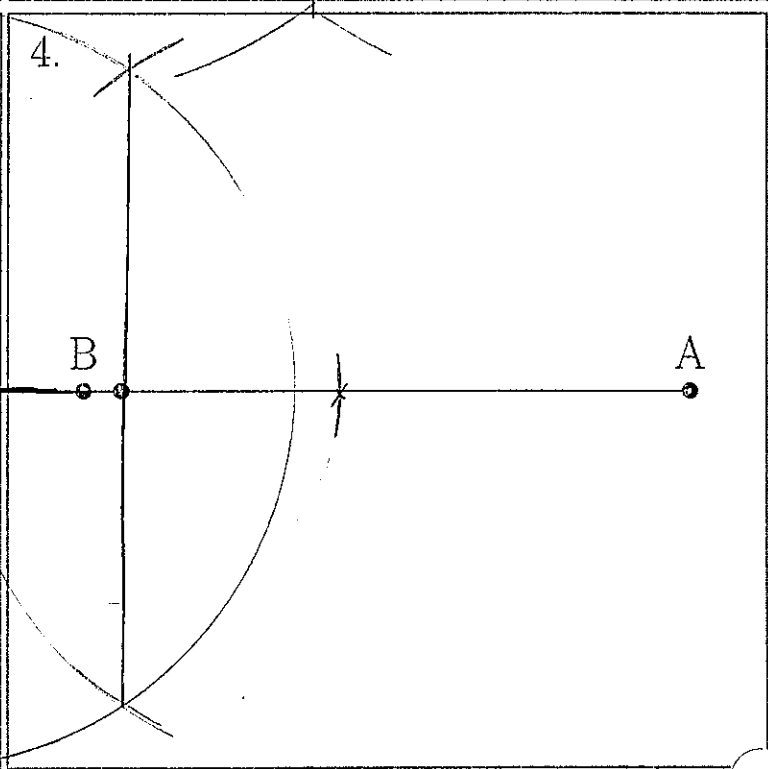
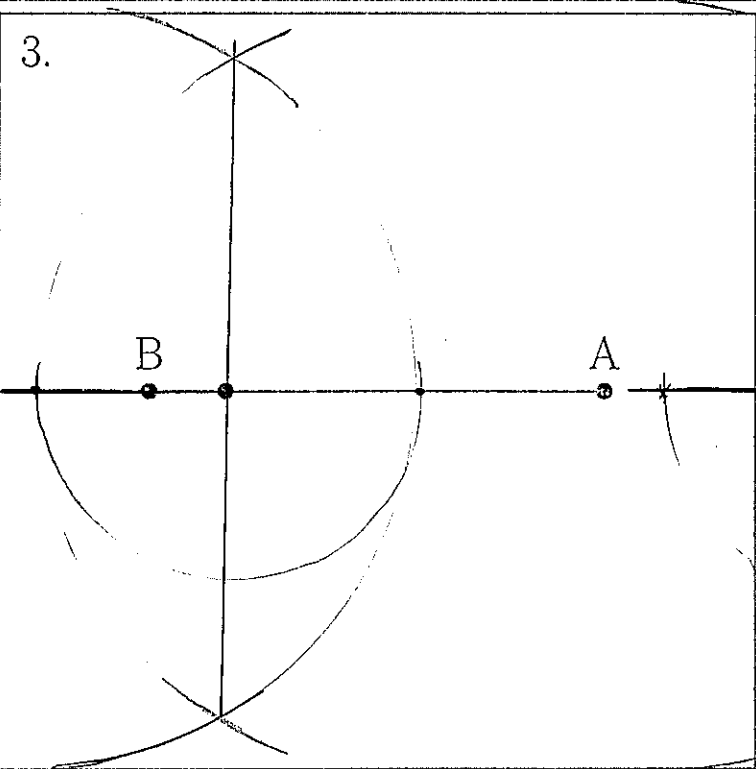
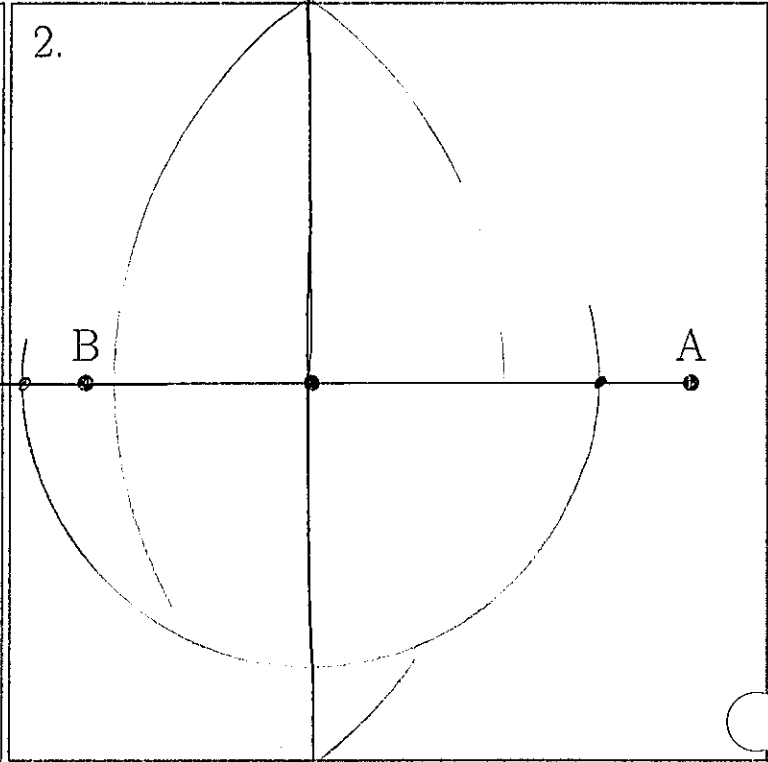
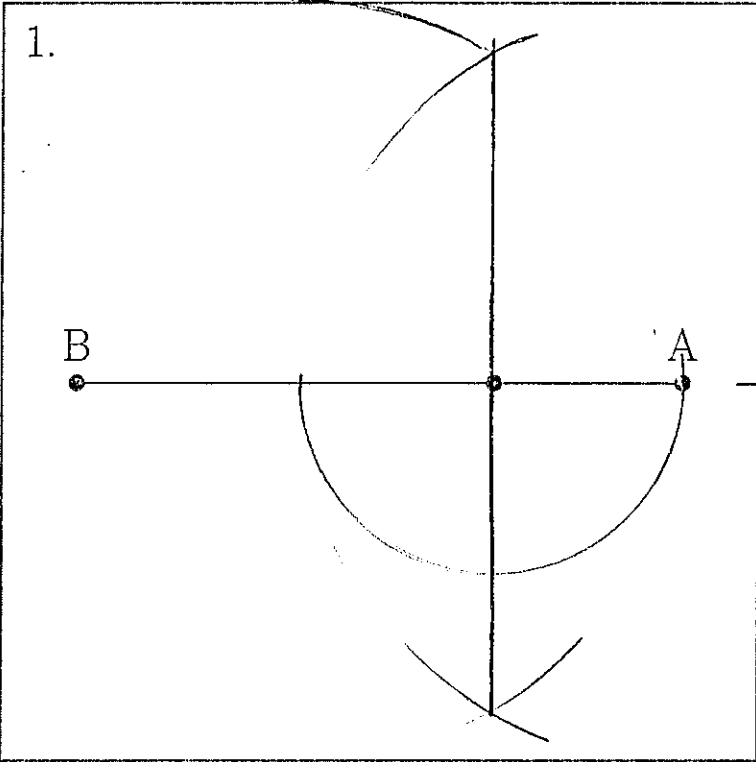


6.



Perpendicular Lines (A)

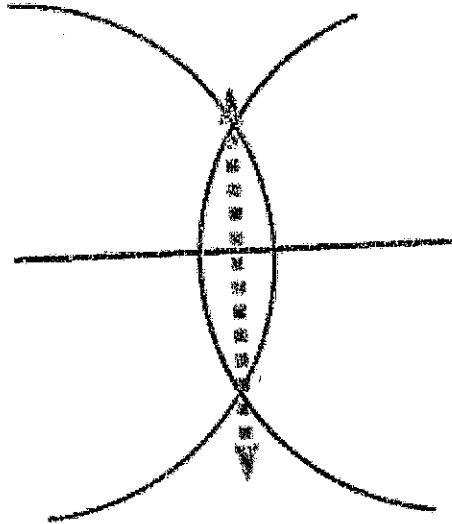
Construct a line perpendicular to the segment through the unlabeled point.



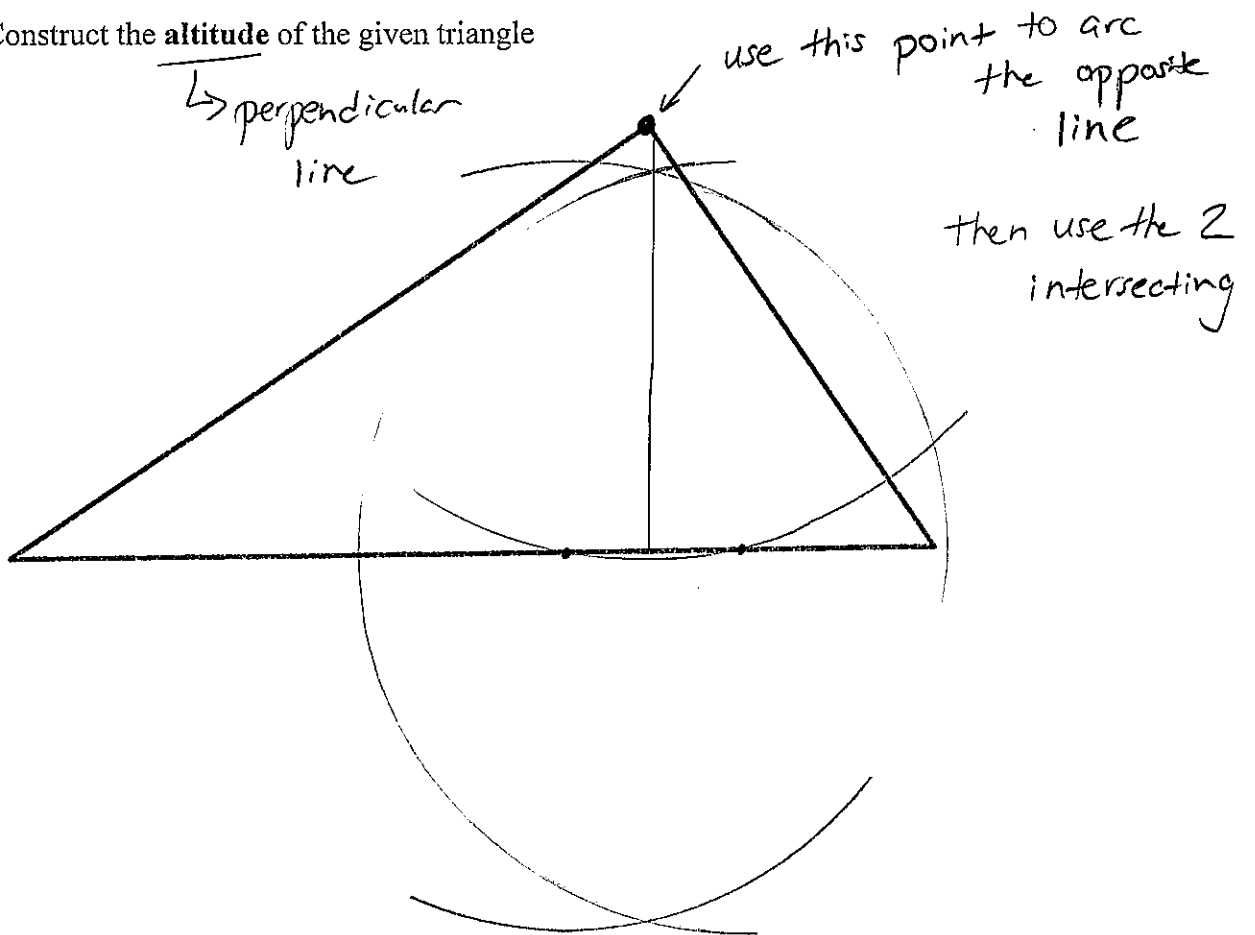
Geometry
Constructing Altitudes/Medians CW

Name _____
Date _____

****Constructing the altitude or median of a triangle involves using the perpendicular bisector construction****



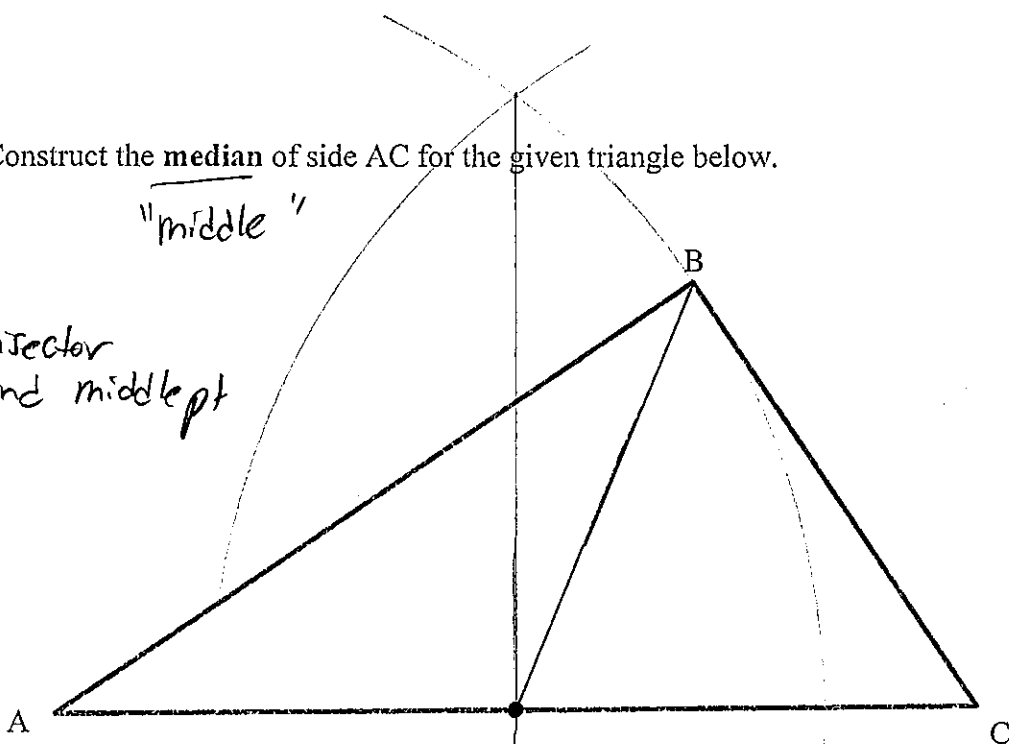
1. Construct the altitude of the given triangle



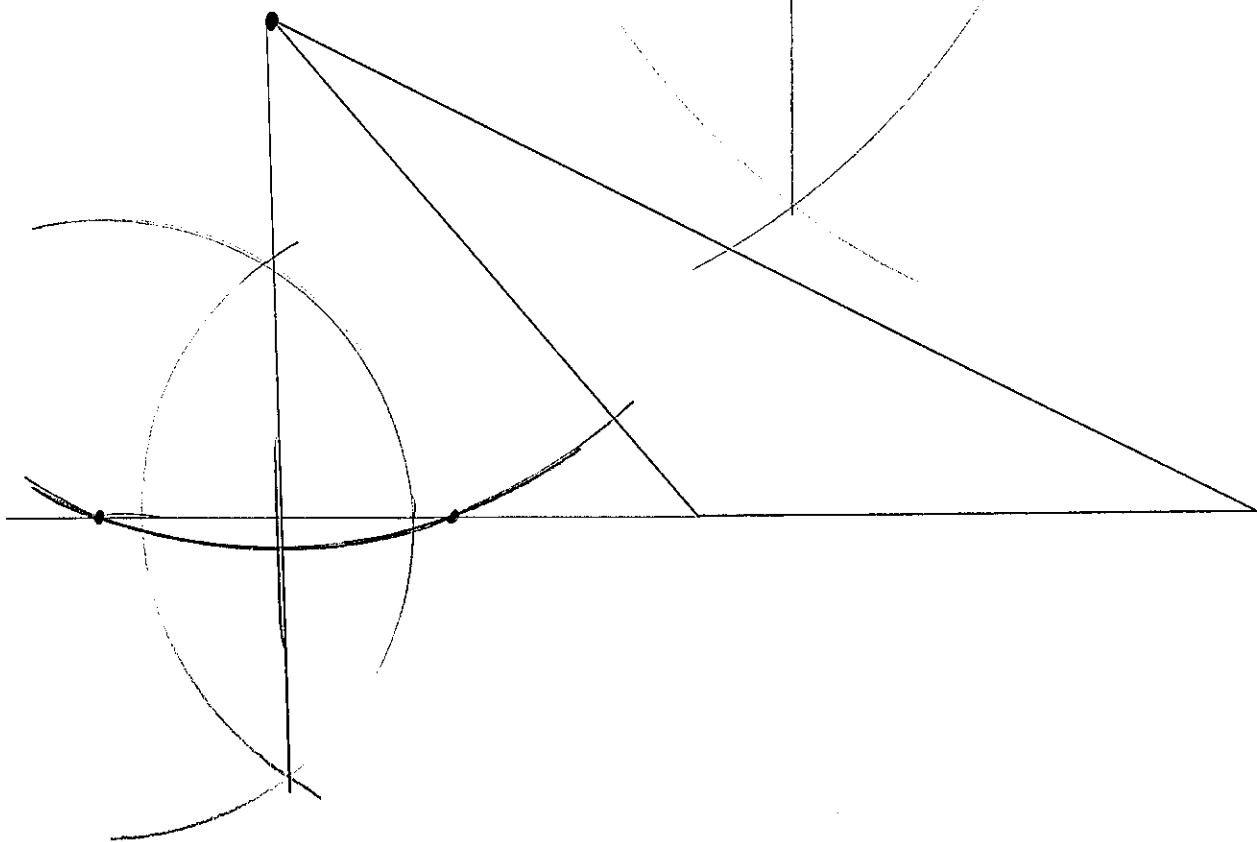
2. Construct the median of side AC for the given triangle below.

"middle"

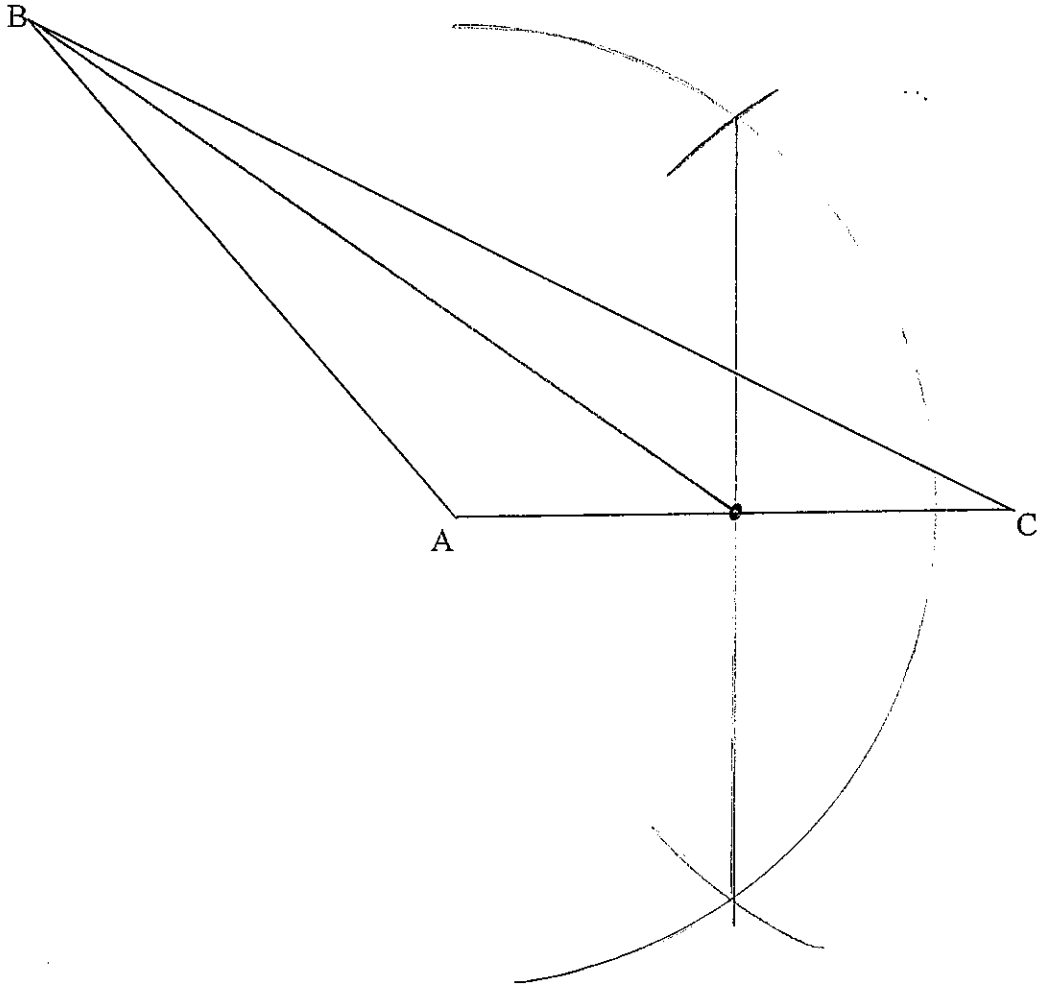
- use \perp bisector
to find midpt



3. Construct the altitude for the obtuse triangle below.



4. Construct the **median** to side AC in the triangle below.

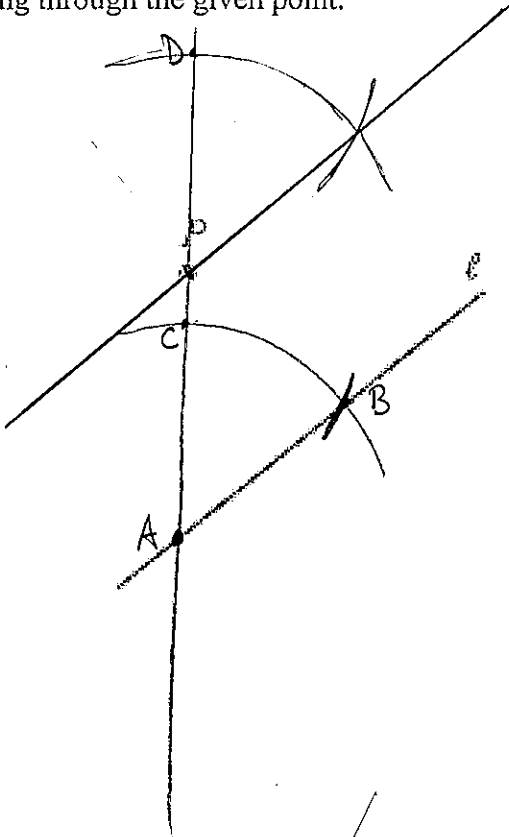


Geometry
Constructions- Parallel Through a Point

Name _____
Date _____

Directions: Using a compass and straight-edge, construct a line parallel to the given line and passing through the given point.

1.



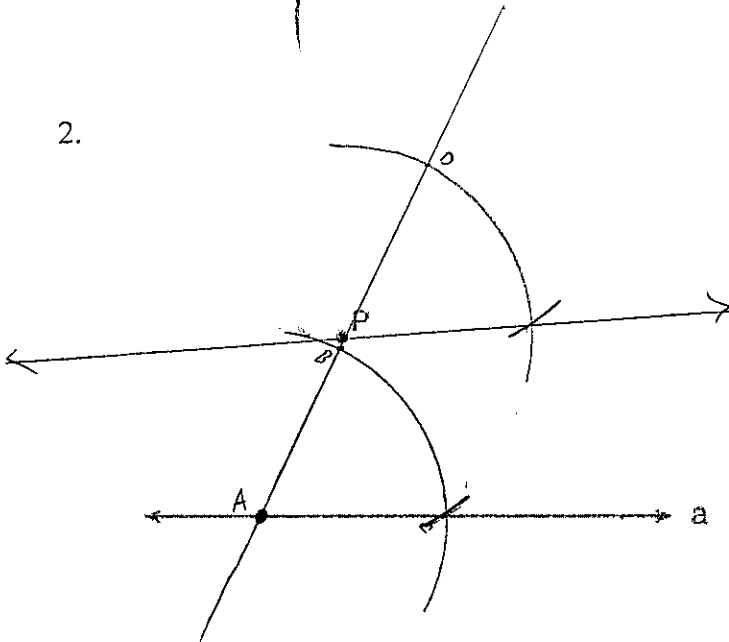
- make a "transversal" any straight line from pt P thru the line l.

- use the intersection (A) point to make an arc then make a 2nd arc using pt P (same hole)

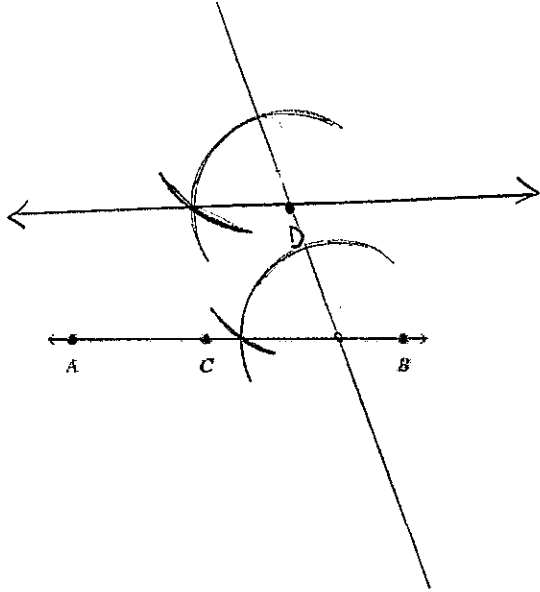
- "measure" distance from point C + B and mark.

- move up to pt D and make the same size arc

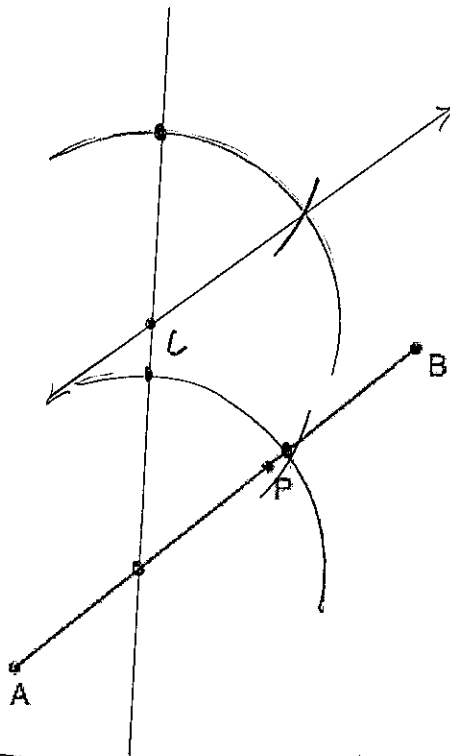
2.



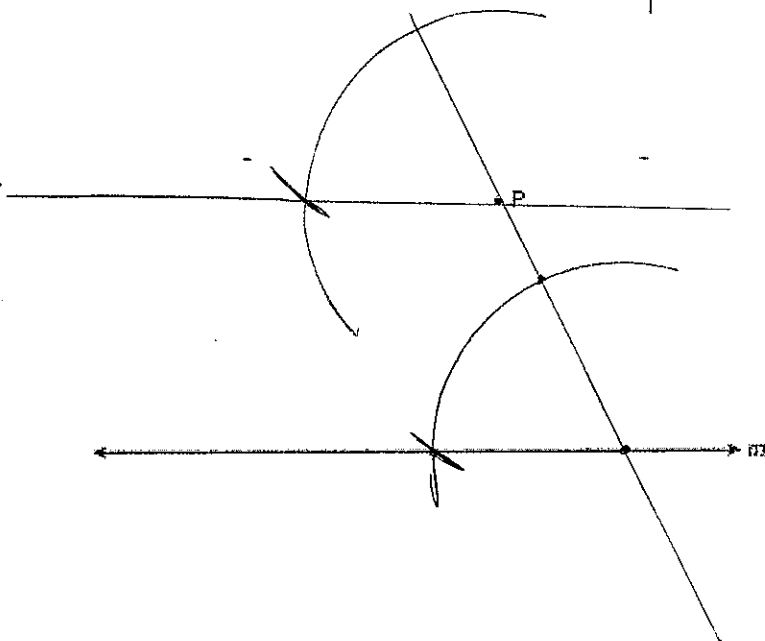
3.



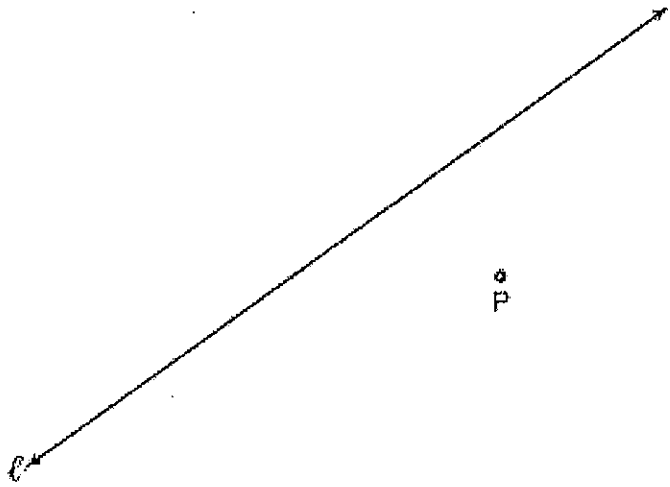
4.



5.



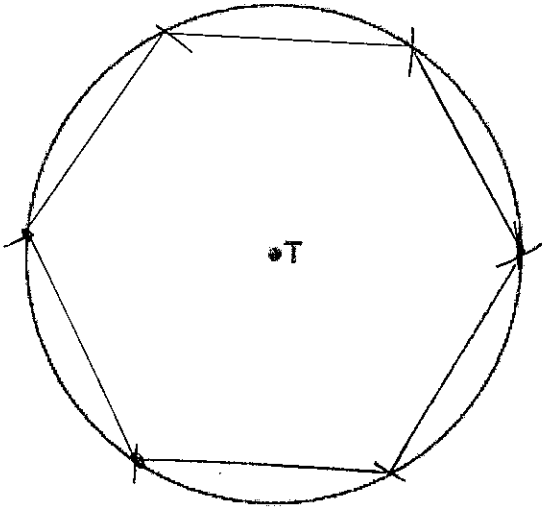
6.



Geometry
Construction- Inscribed Squares and Hexagons

Name _____
Date _____

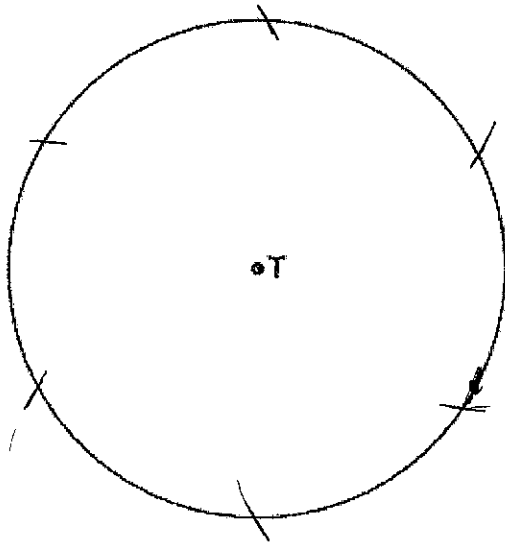
- Using a compass and straight-edge, construct a square inscribed in a circle



When a hexagon is inscribed in a circle, the side length is \cong to the radius

-measure the radius
(put copper ring on T + measure which hole matches to the circle.

- Repeat the process to make sure you know how to do it.



-go around the circle, marking from one point to the next

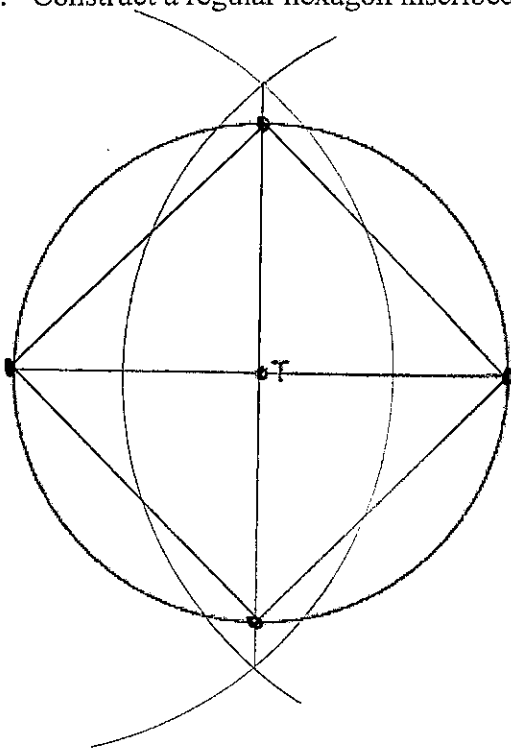
3. Construct an equilateral triangle using the segment below as the length of one side.



4. Construct a regular hexagon using the segment below as one side.



5. Construct a regular hexagon inscribed in the circle below.

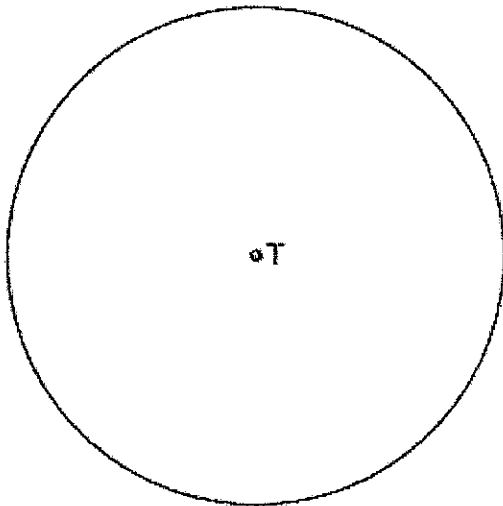


- draw any diameter
(going thru T)

- use the endpoints of
the diameter to
complete a \perp bisector

- connect all 4 points

6. Repeat the process so that you make sure you know what to do



1

2

3

4