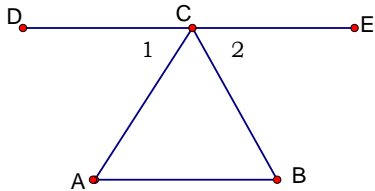


Complete a two-column, paragraph or flow chart proof.

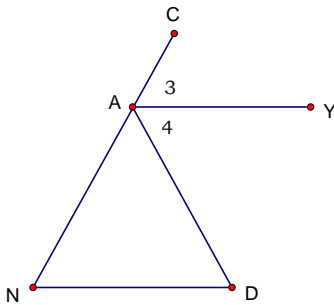
1. Given: $\overrightarrow{DCE} \parallel \overrightarrow{AB}$
 $\angle 1 \cong \angle 2$

Prove: $\angle A \cong \angle B$

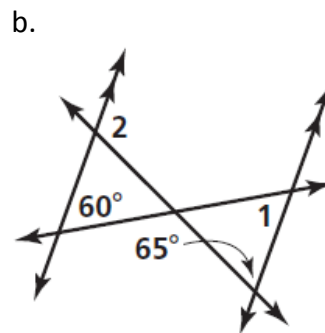
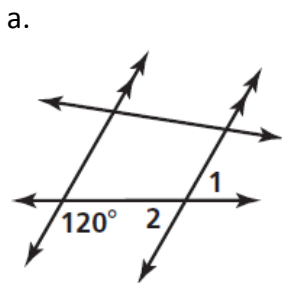


2. Given: $\angle D \cong \angle 3$
 \overrightarrow{AY} bisects $\angle CAD$

Prove: $\overrightarrow{AY} \parallel \overrightarrow{ND}$

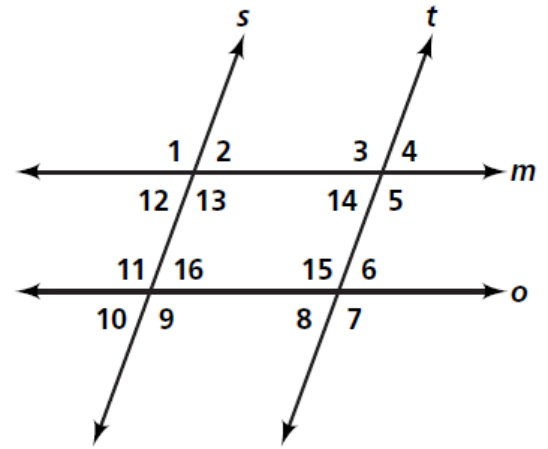


3. Find the $m\angle 1$ and $\angle 2$ in each picture.



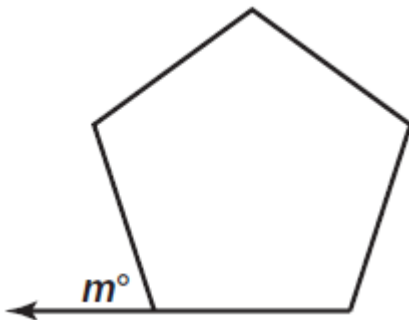
4. Use the diagram of lines m , o , s and t to answer the following questions.

- a. If $\angle 13 \cong \angle 5$, which lines must be parallel? State the theorem or postulate that justifies your conclusion.
- b. If $\angle 14 \cong \angle 6$, which lines must be parallel? State the theorem or postulate that justifies your conclusion.



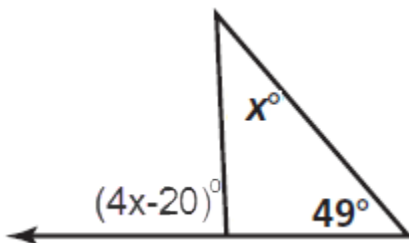
c. If $s \parallel t$, what is the relationship between $\angle 16$ and $\angle 15$? State the theorem or postulate that justifies your conclusion.

5. a. Find the value of m in the **regular** pentagon.



b. A regular polygon has 1 interior angle of 160° . How many sides does the polygon have?

6. Solve for x :



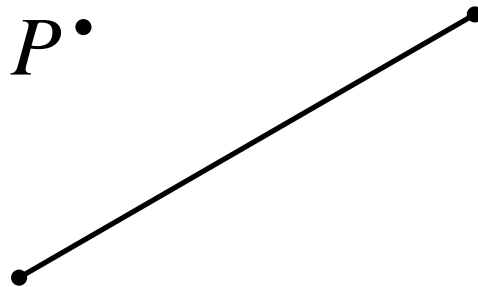
7. Sketch a picture as an example of each.

a. A convex polygon.

b. a concave polygon

c. a shape that is not a polygon.

8. Construct a line parallel to the line through the point P.



9. Construct a regular hexagon inscribed in Circle P and a square inscribed in circle A.

