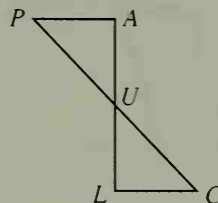


Cumulative Review: Chapters 1–6

- A**
1. An angle and its complement have the measures $x + 38$ and $2x - 5$. Find the measure of the angle.
 2. Find the sum of the measures of the interior angles of a pentagon.

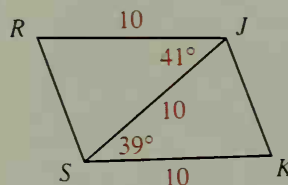
3. Can the given information be used to prove the triangles congruent? If so, which congruence postulate or theorem would you use?

- a. Given: \overline{PC} and \overline{AL} bisect each other.
- b. Given: $\angle P \cong \angle C$; U is the midpoint of \overline{PC} .
- c. Given: $\overline{PA} \parallel \overline{LC}$
- d. Given: $\overline{PA} \perp \overline{AL}$; $\overline{LC} \perp \overline{AL}$; $\overline{PU} \cong \overline{UC}$



4. Tell whether the statement is *always*, *sometimes*, or *never* true for a parallelogram $ABCD$ with diagonals that intersect at P .
 - a. $AB = BC$
 - b. $\overline{AC} \perp \overline{BD}$
 - c. $\angle A$ and $\angle B$ are complementary \angle s.
 - d. $\angle ADB \cong \angle CBD$
 - e. $\overline{AP} \cong \overline{PC}$
 - f. $\triangle ABC \cong \triangle CDA$
5. In $\triangle XYZ$, $m\angle X = 64$ and $m\angle Y = 54$. Name (a) the longest and (b) the shortest side of $\triangle XYZ$.

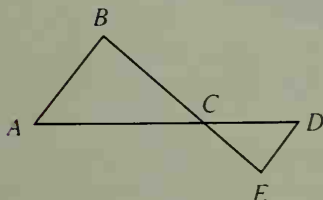
6. a. Which segment is longer: \overline{RS} or \overline{JK} ?
b. Name the theorem that supports your answer.



- B**
7. The difference between the measures of two supplementary angles is 38. Find the measure of each angle.
 8. The lengths of the sides of a triangle are z , $z + 3$, and $z + 6$. What can you conclude about the value of z ?
 9. Write an indirect proof of the following statement: If $PQRS$ is a quadrilateral, then $\angle Q$, $\angle R$, and $\angle S$ are not all 120° .

10. Given: $m\angle B > m\angle A$;
 $m\angle E > m\angle D$

Prove: $AD > BE$



11. Given: $\overline{DC} \parallel \overline{AB}$; $\overline{CE} \perp \overline{AB}$; $\overline{AF} \perp \overline{AB}$
Prove: $AECF$ is a rectangle.

