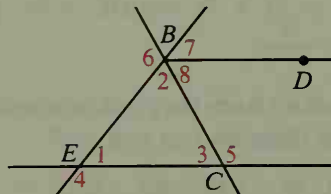


Cumulative Review: Chapters 1–5

- A**
- Given two parallel lines n and k , how many planes contain n and k ?
 - Is it possible for two lines to be neither intersecting nor parallel? If so, what are the lines called?
 - Repeat part (a), replacing *lines* with *planes*.
 - Write the converse of the statement: If you are a member of the skiing club, then you enjoy winter weather.
 - On a number line, point A has a coordinate -5 and B has a coordinate 3 . Find the coordinate of the midpoint of \overline{AB} .
 - Name the property that justifies the statement: If $\angle 1 \cong \angle 2$ and $\angle 2 \cong \angle 3$, then $\angle 1 \cong \angle 3$.

In Exercises 6–10, complete each statement about the diagram. Then state the definition, postulate, or theorem that justifies your answer.

- $m\angle 1 + m\angle 2 + m\angle 3 = \underline{\quad?}$
- $m\angle 1 + m\angle 4 = \underline{\quad?}$
- $m\angle 1 + m\angle 2 = m\angle \underline{\quad?}$
- If $\overleftrightarrow{EC} \parallel \overleftrightarrow{BD}$, then $\angle 7 \cong \underline{\quad?}$.
- If $\angle 2 \cong \angle 3$, then $\overline{EC} \cong \underline{\quad?}$.



Complete each statement.

- The median to the base of an isosceles triangle $\underline{\quad?}$ the vertex angle and is $\underline{\quad?}$ to the base.
 - If a point lies on the perpendicular bisector of \overline{AB} , then the point is equidistant from $\underline{\quad?}$.
 - If a point lies on the bisector of $\angle RST$, then the point is equidistant from $\underline{\quad?}$.
 - Suppose $\triangle ART \cong \triangle DEB$.
 - $\triangle EBD \cong \underline{\quad?}$
 - $\overline{AT} \cong \underline{\quad?}$
 - $m\angle R = \underline{\quad?}$
 - If a regular polygon has 40 sides, the measure of each interior angle is $\underline{\quad?}$.
 - When two parallel lines are cut by a transversal, a pair of corresponding angles have measures $2x + 50$ and $3x$. The measures of the angles are $\underline{\quad?}$ and $\underline{\quad?}$.
- B**
- In $\triangle SUN$, $\angle S \cong \angle N$. Given that $SU = 2x + 7$, $UN = 4x - 1$, and $SN = 3x + 4$, find the numerical length of each side.
 - M and N are the midpoints of the legs of trapezoid $EFGH$. If bases \overline{EF} and \overline{HG} have lengths $2r + s$ and $4r - 3s$, express the length of \overline{MN} in terms of r and s .