

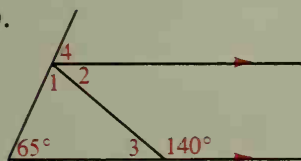
# Cumulative Review: Chapters 1-4

Complete each sentence with the most appropriate word, phrase, or value.

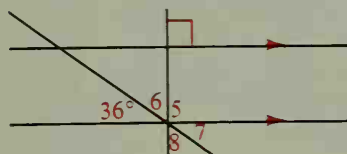
- A
- If  $S$  is between  $R$  and  $T$ , then  $RS + ST = RT$  by the ?.
  - If two parallel planes are cut by a third plane, then the lines of intersection are ?.
  - $\overrightarrow{BD}$  bisects  $\angle ABC$ ,  $m\angle ABC = 5x - 4$ , and  $m\angle CBD = 2x + 10$ .  $\angle ABC$  is a(n) ? angle.
  - If two intersecting lines form congruent adjacent angles, then the lines are ?.
  - If  $\angle 1$  and  $\angle 2$  are complements and  $m\angle 1 = 74$ , then  $m\angle 2 = \underline{\hspace{1cm}}$ .
  - Given the conditional "If  $x = 9$ , then  $3x = 27$ ," its converse is ?.
  - If the measure of each interior angle of a polygon is 144, then the polygon has ? sides.
  - In quadrilateral  $EFGH$ ,  $\overline{EF} \parallel \overline{HG}$ ,  $m\angle E = y + 10$ ,  $m\angle F = 2y - 40$ , and  $m\angle H = 2y - 31$ .  $m\angle G = \underline{\hspace{1cm}}$  (numerical answer)
  - If a diagonal of an equilateral quadrilateral is drawn, the two triangles formed can be proved congruent by the ? method.

Find the measure of each numbered angle.

10.



11.



Could the given information be used to prove that two lines are parallel? If so, which lines?

12.  $m\angle 8 + m\angle 9 = 180$

13.  $\angle 1 \cong \angle 4$

14.  $m\angle 2 = m\angle 6$

15.  $\angle 8$  and  $\angle 5$  are rt.  $\angle$ s.

$a$		$b$		
1	2	3	4	$c$
8	7	6	5	
9	10	11	12	$d$
16	15	14	13	

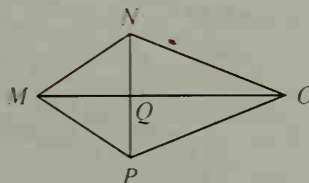
B

16. Given:  $\overline{MN} \cong \overline{MP}$ ;  $\angle NMO \cong \angle PMO$

Prove:  $\overline{MO}$  is the  $\perp$  bisector of  $\overline{NP}$ .

17. Given:  $\overline{MO} \perp \overline{NP}$ ;  $\overline{NO} \cong \overline{PO}$

Prove:  $\overline{MN} \cong \overline{MP}$



18. Write a paragraph proof: If  $\overline{AX}$  is both a median and an altitude of  $\triangle ABC$ , then  $\triangle ABC$  is isosceles.