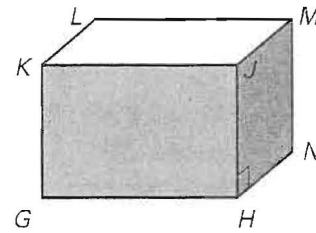


Section 3.1

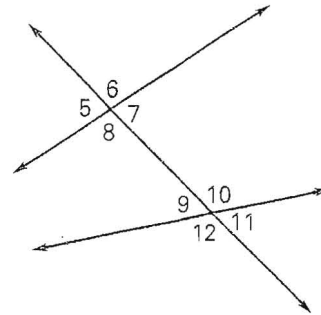
Think of each segment in the diagram as part of a line.
There may be more than one correct answer.

6. Name a line parallel to \overleftrightarrow{HJ} .
7. Name a line perpendicular to \overleftrightarrow{LM} .
8. Name a line skew to \overleftrightarrow{GH} .
9. Name a plane parallel to plane GHJ .
10. Name a line perpendicular to \overleftrightarrow{JH} .



Complete the statement with *corresponding*, *alternate interior*, *alternate exterior*, or *consecutive interior*.

11. $\angle 6$ and $\angle 10$ are ? angles.
12. $\angle 7$ and $\angle 9$ are ? angles.
13. $\angle 8$ and $\angle 9$ are ? angles.
14. $\angle 12$ and $\angle 8$ are ? angles.
15. $\angle 5$ and $\angle 11$ are ? angles.

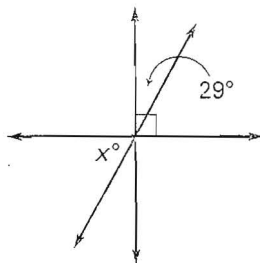


Section 3.2

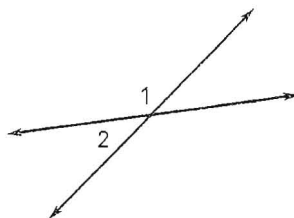
State the definition, theorem, or postulate that justifies each statement.

1. If $\angle 1$ and $\angle 2$ are vertical angles, then $\angle 1 \cong \angle 2$.
2. If $\angle 1 \cong \angle 2$ and $\angle 2 \cong \angle 3$, then $\angle 1 \cong \angle 3$.
3. If $\angle 1$ and $\angle 2$ form a linear pair, then $m\angle 1 + m\angle 2 = 180^\circ$.

4. Find the value of x .

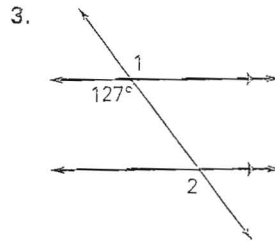
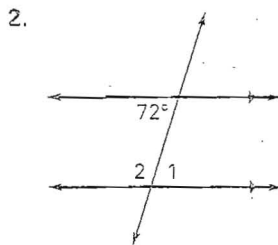
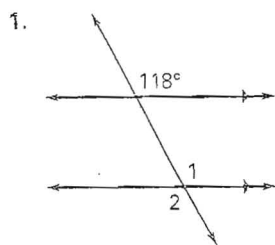


5. What can you conclude about the labeled angles?

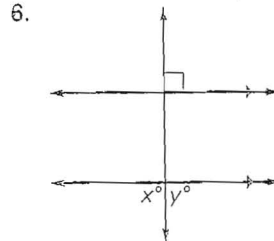
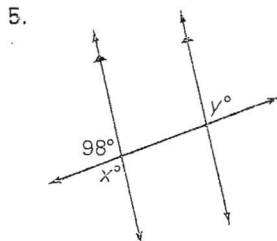
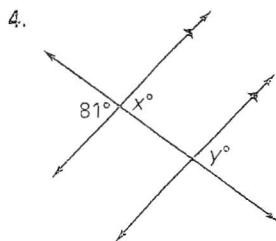


Section 3.3

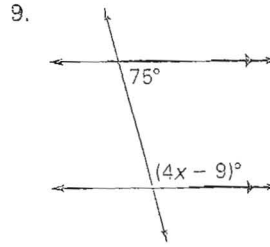
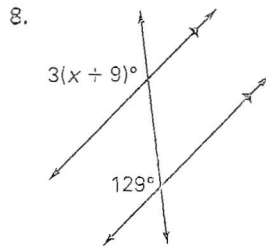
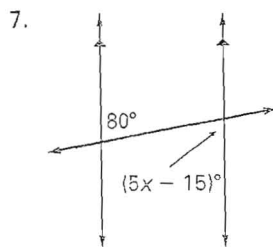
Find $m\angle 1$ and $m\angle 2$. Explain your reasoning.



Find the values of x and y .

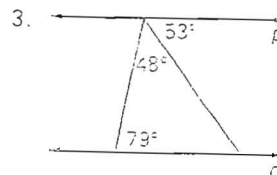
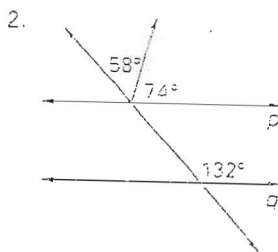
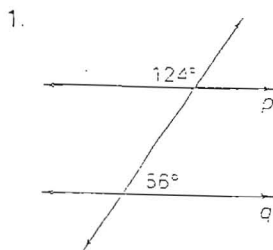


Find the value of x .



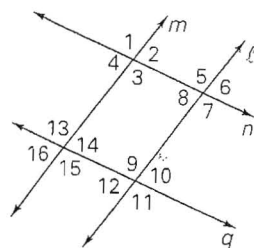
Section 3.4

Is it possible to prove that lines p and q are parallel? If so, explain how.



Use the diagram and the given information to determine which lines are parallel. Explain.

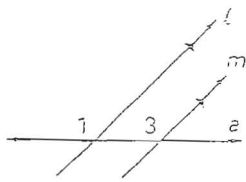
10. $\angle 13 \cong \angle 11$
11. $\angle 4 \cong \angle 8$
12. $\angle 16 \cong \angle 2$
13. $\angle 7 \cong \angle 9$



14. Complete the two-column proof.

Given: $\ell \parallel m$, $\angle 1 \cong \angle 2$

Prove: $a \parallel b$



Statements	Reasons
1. $\ell \parallel m$	1. _____
2. $\angle 1 \cong \angle 3$	2. _____
3. $\angle 1 \cong \angle 2$	3. _____
4. $\angle 2 \cong \angle 3$	4. _____