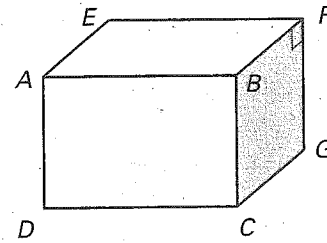


**Practice A**

For use with pages 129–134

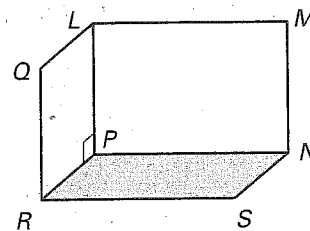
Think of each segment in the diagram as part of a line. Fill in the blank with *parallel*, *skew*, or *perpendicular*.

- $\overleftrightarrow{AB}$  and  $\overleftrightarrow{DC}$  are     ?
- $\overleftrightarrow{AB}$  and  $\overleftrightarrow{BC}$  are     ?
- $\overleftrightarrow{BF}$  and  $\overleftrightarrow{FG}$  are     ?
- $\overleftrightarrow{AB}$  and  $\overleftrightarrow{FG}$  are     ?



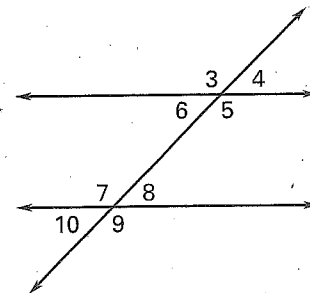
Think of each segment in the diagram as part of a line. There may be more than one correct answer.

- Name a line parallel to  $\overleftrightarrow{MN}$ .
- Name a line perpendicular to  $\overleftrightarrow{PR}$ .
- Name a line skew to  $\overleftrightarrow{SN}$ .
- Name a plane parallel to plane *RPL*.



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

- $\angle 3$  and  $\angle 7$  are     ? angles.
- $\angle 4$  and  $\angle 10$  are     ? angles.
- $\angle 5$  and  $\angle 8$  are     ? angles.
- $\angle 8$  and  $\angle 6$  are     ? angles.
- $\angle 9$  and  $\angle 5$  are     ? angles.
- $\angle 5$  and  $\angle 7$  are     ? angles.

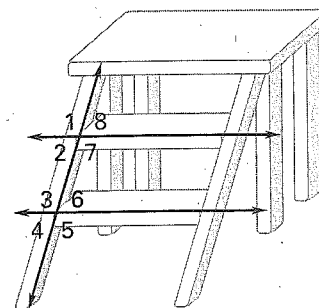


Answer true or false.

- The hands of a clock are perpendicular at 3:00 and 9:00.
- If two lines do not intersect, then they are parallel.
- The perpendicular postulate states that for a point on a line, there is exactly one line through the point perpendicular to the line.
- The parallel postulate states that for a point not on a line, there is exactly one line through the point parallel to the line.

Use the diagram to answer the question.

- Name all pairs of vertical angles.
- Name all pairs of corresponding angles.
- Name all pairs of alternate interior angles.

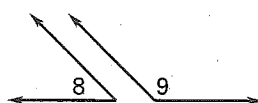
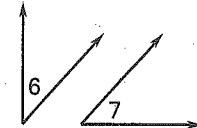
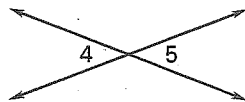
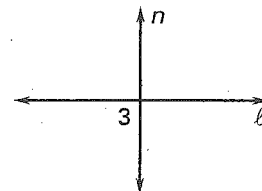
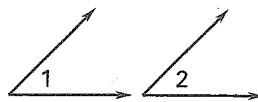


# Practice A

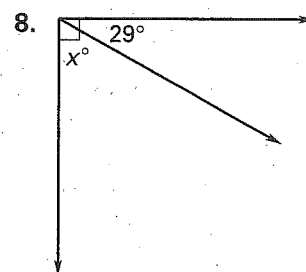
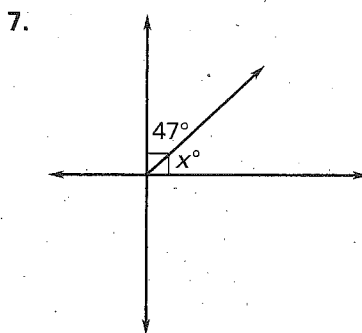
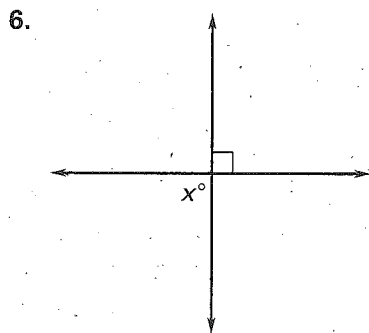
For use with pages 136-141

State the reason for the conclusion.

- Given:  $\angle 1 \cong \angle 2$   
Conclusion:  $m\angle 1 = m\angle 2$
- Given:  $l \perp n$   
Conclusion:  $\angle 3$  is a right angle
- Given:  $\angle 4$  and  $\angle 5$  are vertical angles  
Conclusion:  $\angle 4 \cong \angle 5$
- Given:  $\angle 6$  and  $\angle 7$  are complementary angles  
Conclusion:  $m\angle 6 + m\angle 7 = 90^\circ$
- Given:  $\angle 8$  and  $\angle 9$  are supplementary angles  
Conclusion:  $m\angle 8 + m\angle 9 = 180^\circ$



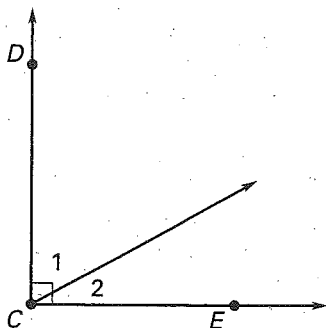
Find the value of x.



9. Complete the flow proof of Theorem 3.2.

Given:  $\overrightarrow{CD} \perp \overrightarrow{CE}$

Prove:  $\angle 1$  and  $\angle 2$  are complementary.



$\overrightarrow{CD} \perp \overrightarrow{CE}$

a. \_\_\_\_\_

$\angle DCE$  is a right  $\angle$ .

b. \_\_\_\_\_

$m\angle DCE = 90^\circ$

c. \_\_\_\_\_

$m\angle DCE = m\angle 1 + m\angle 2$

d. \_\_\_\_\_

$m\angle 1 + m\angle 2 = 90^\circ$

e. \_\_\_\_\_

$\angle 1$  and  $\angle 2$  are complementary.

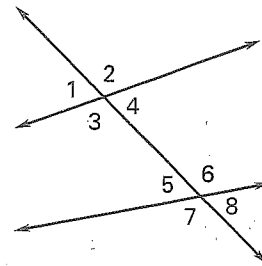
f. \_\_\_\_\_

**Practice A**

For use with pages 143–149

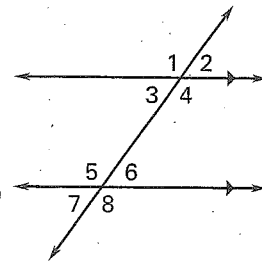
Name the relationship between the pair of angles.

- |                              |                              |
|------------------------------|------------------------------|
| 1. $\angle 1$ and $\angle 5$ | 2. $\angle 2$ and $\angle 7$ |
| 3. $\angle 3$ and $\angle 6$ | 4. $\angle 8$ and $\angle 5$ |
| 5. $\angle 4$ and $\angle 6$ | 6. $\angle 8$ and $\angle 4$ |



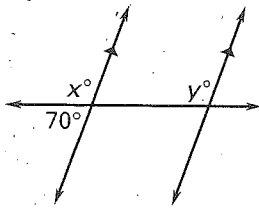
State the postulate or theorem that justifies the statement.

7.  $\angle 3 \cong \angle 7$
8.  $\angle 3 \cong \angle 6$
9.  $\angle 2 \cong \angle 7$
10.  $m\angle 4 + m\angle 6 = 180^\circ$

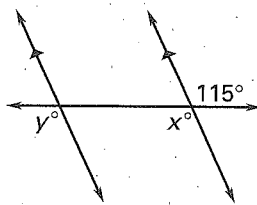


Find the values of  $x$  and  $y$ .

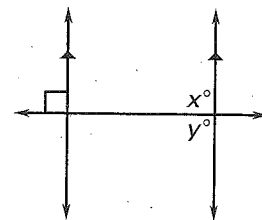
11.



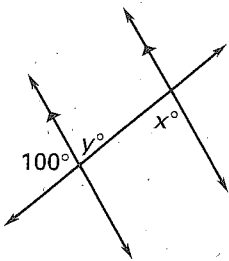
12.



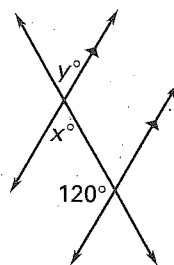
13.



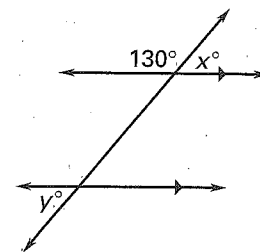
14.



15.



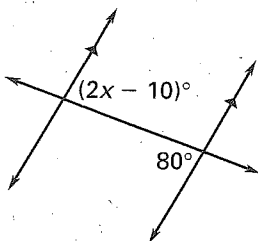
16.



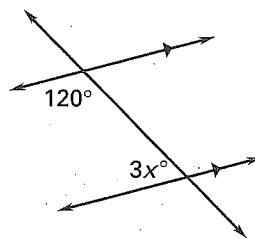
Lesson 3.3

Find the value of  $x$ .

17.



18.



19.

