LESSON 3.2

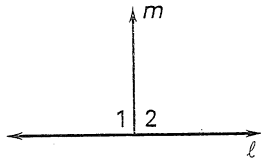
NAME _____ DATE _____

Practice C

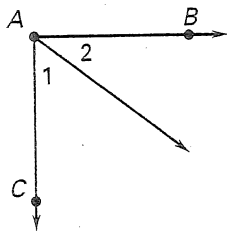
For use with pages 136–141

What can you conclude from the given information? State the reason for your conclusion.

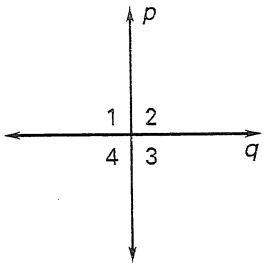
1. $\angle 1 \cong \angle 2$



2. $\overrightarrow{AB} \perp \overrightarrow{AC}$

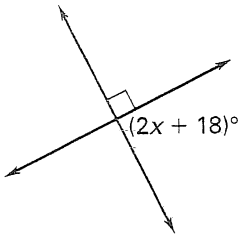


3. $p \perp q$

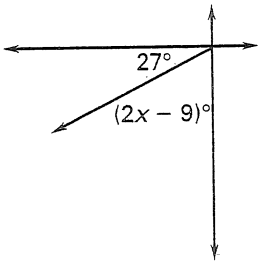


Find the value of *x*.

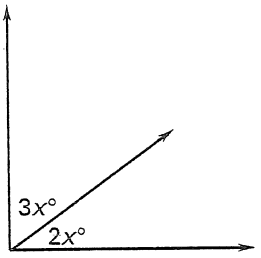
4.



5.



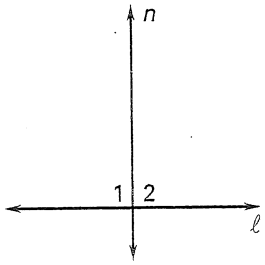
6.



7. Complete the two-column proof of Theorem 3.1.

Given: $\angle 1 \cong \angle 2$, $\angle 1$ and $\angle 2$ are a linear pair

Prove: $\ell \perp n$



Statements	Reasons
1. $\angle 1 \cong \angle 2$	1. _____
2. $m\angle 1 = m\angle 2$	2. _____
3. $\angle 1$ and $\angle 2$ are a linear pair	3. _____
4. $\angle 1$ and $\angle 2$ are supplementary	4. _____
5. $m\angle 1 + m\angle 2 = 180°$	5. _____
6. $m\angle 1 + m\angle 1 = 180°$	6. _____
7. $2(m\angle 1) = 180°$	7. _____
8. $m\angle 1 = 90°$	8. _____
9. $\angle 1$ is a right $\angle$	9. _____
10. $\ell \perp n$	10. _____

8. Write a proof of Theorem 3.2.

Given: $\overrightarrow{FG} \perp \overrightarrow{FH}$

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