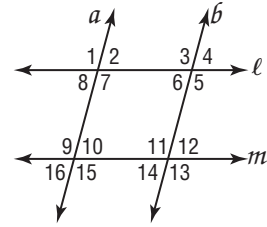


3-5 Skills Practice

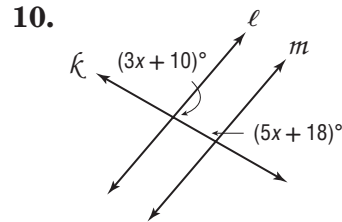
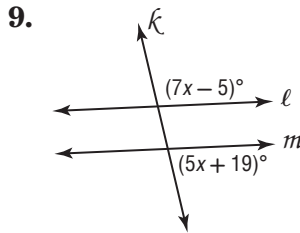
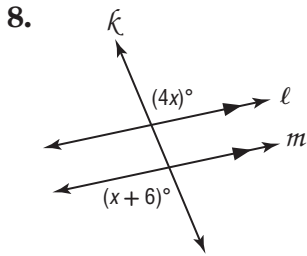
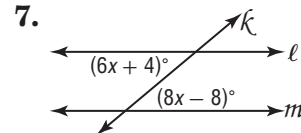
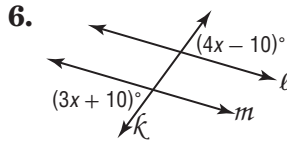
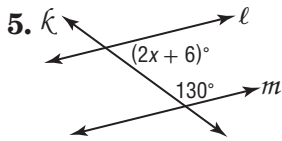
Proving Lines Parallel

Given the following information, determine which lines, if any, are parallel. State the postulate or theorem that justifies your answer.



1. $\angle 3 \cong \angle 7$
2. $\angle 9 \cong \angle 11$
3. $\angle 2 \cong \angle 16$
4. $m\angle 5 + m\angle 12 = 180$

Find x so that $\ell \parallel m$. Show your work.



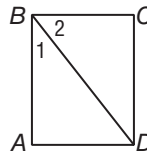
11. **PROOF** Provide a reason for each statement in the proof of Theorem 3.7.

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

$$\overline{BC} \perp \overline{CD}$$

Prove: $\overline{BA} \parallel \overline{CD}$

Proof:



Statements	Reasons
1. $\overline{BC} \perp \overline{CD}$	1.
2. $m\angle ABC = m\angle 1 + m\angle 2$	2.
3. $\angle 1$ and $\angle 2$ are complementary.	3.
4. $m\angle 1 + m\angle 2 = 90$	4.
5. $m\angle ABC = 90$	5.
6. $\overline{BA} \perp \overline{BC}$	6.
7. $\overline{BA} \parallel \overline{CD}$	7.