

Name _____

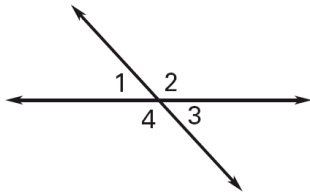
Date _____

LESSON 2.7

Practice B

For use with pages 122–131

Use the diagram to decide whether the statement is *true* or *false*.



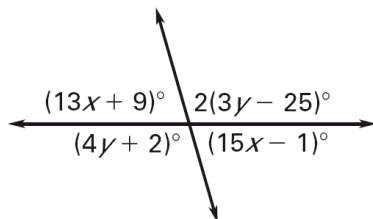
1. If $m\angle 1 = 47^\circ$, then $m\angle 2 = 43^\circ$.
2. If $m\angle 1 = 47^\circ$, then $m\angle 3 = 47^\circ$.
3. $m\angle 1 + m\angle 3 = m\angle 2 + m\angle 4$.
4. $m\angle 1 + m\angle 4 = m\angle 2 + m\angle 3$.

Make a sketch of the given information. Label all angles which can be determined.

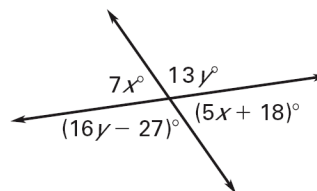
5. Adjacent complementary angles where one angle measures 42°
6. Vertical angles which measure 42°
7. $\angle ABC$ and $\angle CBD$ are adjacent complementary angles. $\angle CBD$ and $\angle DBF$ are adjacent complementary angles.

Find the value of the variables and the measure of each angle in the diagram.

8.



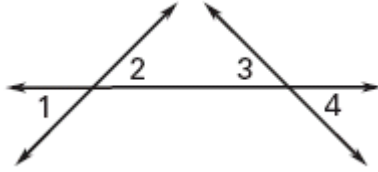
9.



Give a reason for each step of the proof.

10. GIVEN: $\angle 2 \cong \angle 3$

PROVE: $\angle 1 \cong \angle 4$

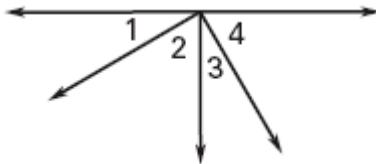


Statements	Reasons
1. $\angle 2 \cong \angle 3$	1. <u>?</u>
2. $\angle 3 \cong \angle 4$	2. <u>?</u>
3. $\angle 2 \cong \angle 4$	3. <u>?</u>
4. $\angle 1 \cong \angle 2$	4. <u>?</u>
5. $\angle 1 \cong \angle 4$	5. <u>?</u>

11. GIVEN: $\angle 1$ and $\angle 2$ are complementary.

$\angle 1 \cong \angle 3$, $\angle 2 \cong \angle 4$

PROVE: $\angle 3$ and $\angle 4$ are complementary.



Statements	Reasons
1. $\angle 1$ and $\angle 2$ are complementary.	1. <u>?</u>
2. $m\angle 1 + m\angle 2 = 90^\circ$	2. <u>?</u>
3. $\angle 1 \cong \angle 3$, $\angle 2 \cong \angle 4$	3. <u>?</u>
4. $m\angle 1 = m\angle 3$, $m\angle 2 = m\angle 4$	4. <u>?</u>
5. $m\angle 3 + m\angle 2 = 90^\circ$	5. <u>?</u>
6. $m\angle 3 + m\angle 4 = 90^\circ$	6. <u>?</u>
7. $\angle 3$ and $\angle 4$ are complementary.	7. <u>?</u>