

Practice C

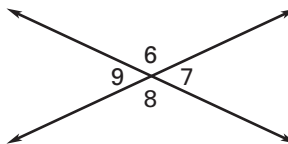
For use with pages 44–50

Decide if the statement is *always*, *sometimes*, or *never* true.

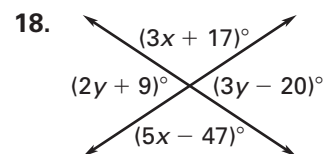
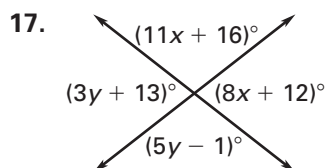
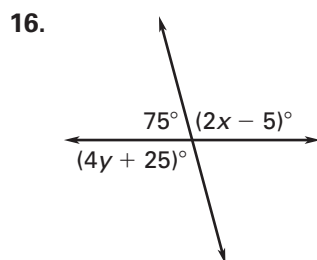
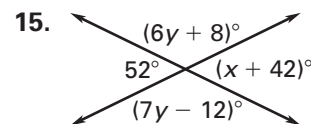
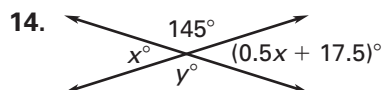
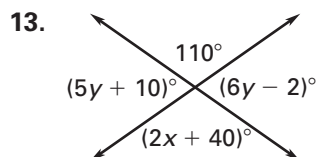
1. If two angles are complementary then they are adjacent.
2. If two angles are a linear pair then they are adjacent.
3. If two angles are vertical angles then they are adjacent.
4. If two angles are supplementary then one angle is acute and one angle is obtuse.

Use the figure at the right. Given one angle measure, find the other three.

5. If $m\angle 6 = 38^\circ$
6. If $m\angle 8 = 84^\circ$
7. If $m\angle 9 = 136^\circ$
8. If $m\angle 7 = 27^\circ$

**In Exercises 9–12, assume $\angle A$ and $\angle B$ are complementary and $\angle B$ and $\angle C$ are supplementary.**

9. If $m\angle A = 52^\circ$, then $m\angle B = \underline{\quad ? \quad}$ and $m\angle C = \underline{\quad ? \quad}$.
10. If $m\angle B = 67^\circ$, then $m\angle A = \underline{\quad ? \quad}$ and $m\angle C = \underline{\quad ? \quad}$.
11. If $m\angle C = 107^\circ$, then $m\angle B = \underline{\quad ? \quad}$ and $m\angle A = \underline{\quad ? \quad}$.
12. If $m\angle B = 12^\circ$, then $m\angle A = \underline{\quad ? \quad}$ and $m\angle C = \underline{\quad ? \quad}$.

Find the value(s) of the variable(s).**In Exercises 19 and 20, assume that $\angle A$ is supplementary to $\angle B$ and complementary to $\angle C$. Determine $m\angle A$, $m\angle B$, and $m\angle C$.**

19. $m\angle A = (x + 10)^\circ$, $m\angle B = (12x + 1)^\circ$, $m\angle C = (5x + 2)^\circ$
20. $m\angle A = (2.5x + 17)^\circ$, $m\angle B = (21x - 25)^\circ$, $m\angle C = (8x - 11)^\circ$