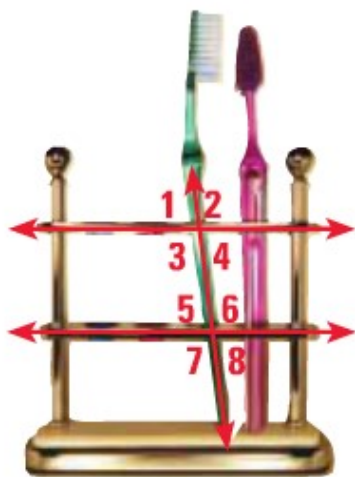2. ★ **WRITING** Two parallel lines are cut by a transversal. Which pairs of angles are congruent? Which pairs of angles are supplementary?

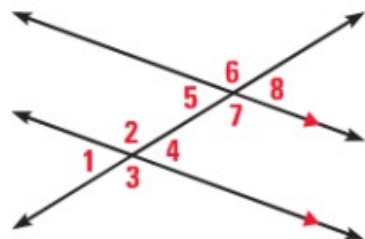**USING PARALLEL LINES** Find the angle measure. Tell which postulate or theorem you use.

  4. If $m\angle 4 = 65°$, then $m\angle 1 =$ ____.

  6. If $m\angle 5 = 71°$, then $m\angle 4 =$ ____.

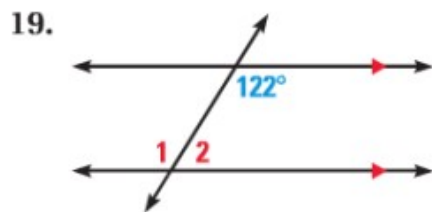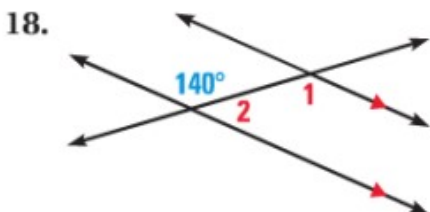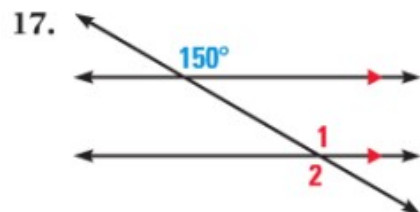 **8.** If $m\angle 8 = 54°$, then $m\angle 1 =$ ____.

USING POSTULATES AND THEOREMS What postulate or theorem justifies the statement about the diagram?
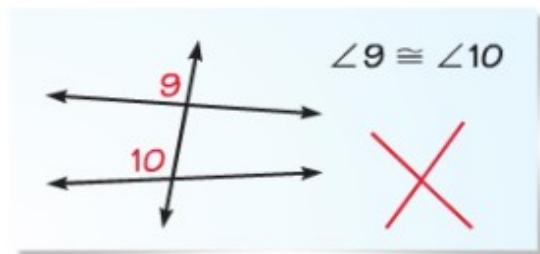
10. $\angle 4 \cong \angle 5$

12. $\angle 2$ and $\angle 5$ are supplementary.

14. $\angle 3 \cong \angle 7$

16. $\angle 4$ and $\angle 7$ are supplementary.

USING PARALLEL LINES Find $m\angle 1$ and $m\angle 2$. *Explain* your reasoning.

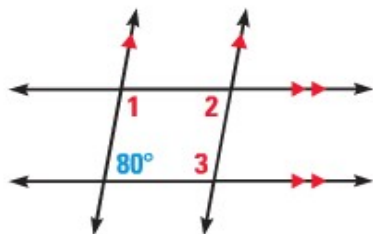**17.** 150° 1 2

18. 140° 2 1

19. 122° 1 2

20. ERROR ANALYSIS A student concludes that $\angle 9 \cong \angle 10$ by the Corresponding Angles Postulate. Describe and correct the error in this reasoning.
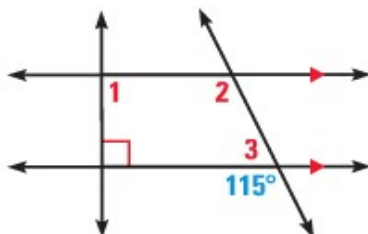
$\angle 9 \cong \angle 10$

USING PARALLEL LINES Find $m\angle 1$, $m\angle 2$, and $m\angle 3$. *Explain* your reasoning.
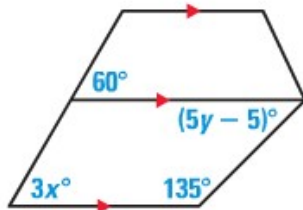
22.

80° 3

23.

115°

24.

133°
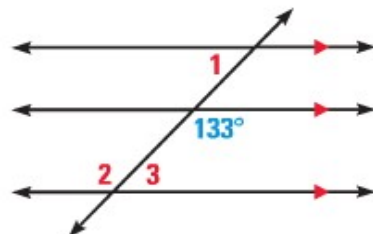
xy ALGEBRA Find the values of x and y.

28.

$3y°$
$6y°$
$2x°$

30.

$60°$
$(5y - 5)°$
$3x°$ $135°$

32.

$(14x - 10)°$
$2y°$ $5x°$