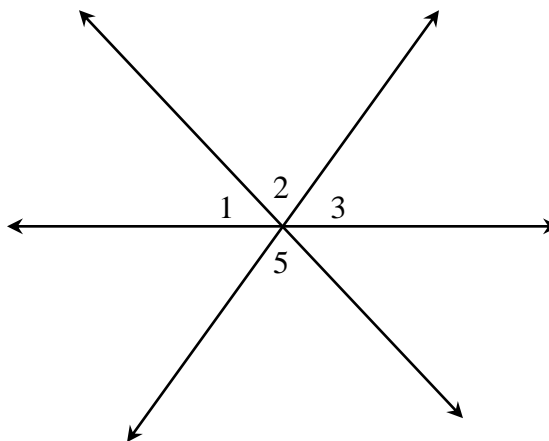Name_____Per._____Date_____
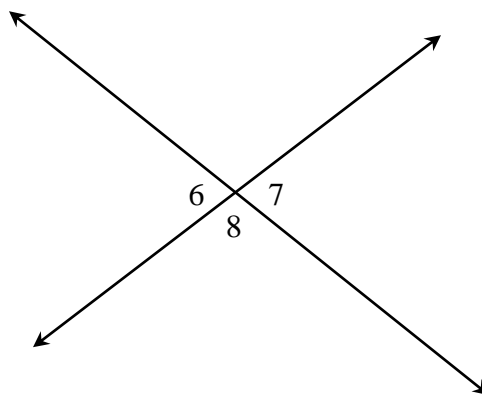Geometry Ch. 2 2.6-2.8 practice test

**For problems 1-2, find the measure of each numbered angle.**

1. In the following figure, $m\angle 1 = 4x - 1$, $m\angle 3 = 5x - 2$, and $m\angle 5 = x + 23$.
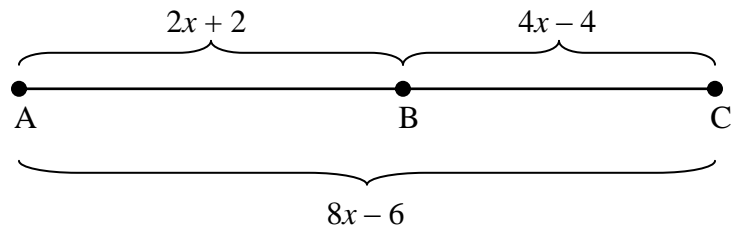


$m\angle 1 = $ _____, $m\angle 2 = $ _____, $m\angle 3 = $ _____, $m\angle 5 = $ _____

2. In the following figure, $m\angle 6 = 2x + 28$ and $m\angle 7 = 6x - 12$.
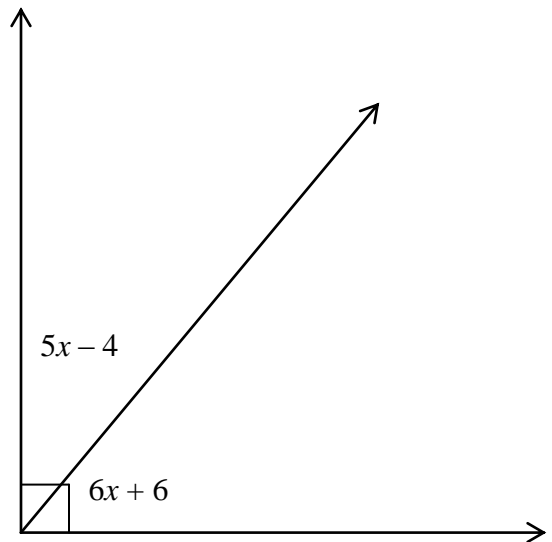


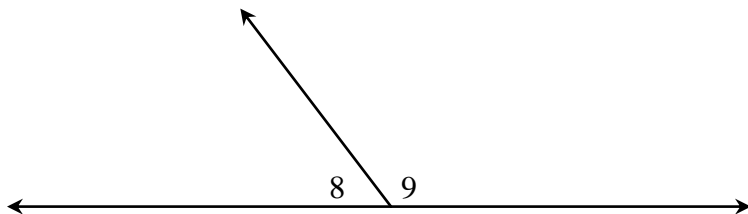$m\angle 6 = $ _____, $m\angle 7 = $ _____, $m\angle 8 = $ _____
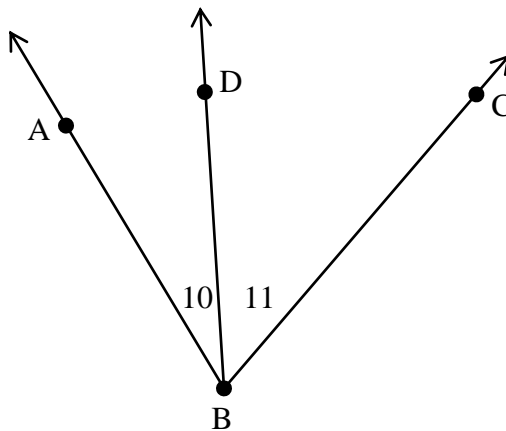
3. Find $x$.



4. Find $x$.

**For problems 5-6, find the measure of each numbered angle.**

5. In the following figure, $m\angle 8 = 3x + 20$ and $m\angle 9 = 6x - 11$.

$m\angle 8 =$ _____, $m\angle 9 =$ _____

6. In the following figure, $m\angle 10 = 3x + 6$, $m\angle 11 = 6x - 3$, and $m\angle ABC = 10x - 2$.

$m\angle 10 =$ _____, $m\angle 11 =$ _____
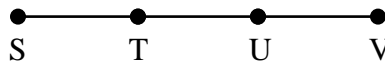
**Write a 2-column proof.**

7. **Given:** $6x + 2(x-1) = 30$
   **Prove:** $x = 4$

**Write a 2-column proof.**

8. **Given:** T is the midpt. of $\overline{SU}$
$\overline{UV} \cong \overline{TU}$

      **Prove:** $\overline{ST} \cong \overline{UV}$

S       T       U       V

**Write a 2-column proof.**

9. **Given:** $\angle 1 \cong \angle 3$

   **Prove:** $m\angle 2 + m\angle 3 = m\angle ABC$