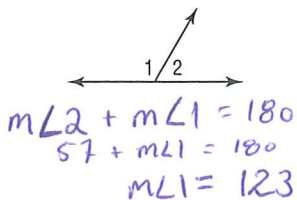


# 2-8 Skills Practice

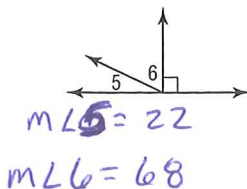
## Proving Angle Relationships

Find the measure of each numbered angle.

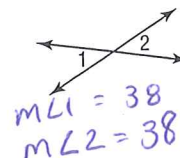
1.  $m\angle 2 = 57$



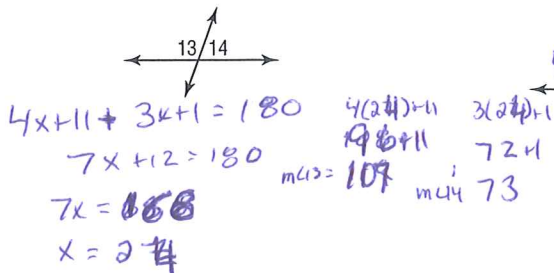
2.  $m\angle 5 = 22$



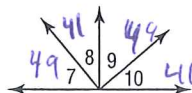
3.  $m\angle 1 = 38$



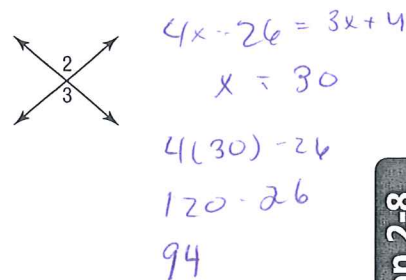
4.  $m\angle 13 = 4x + 11$ ,  
 $m\angle 14 = 3x + 1$



5.  $\angle 9$  and  $\angle 10$  are complementary.  
 $\angle 7 \cong \angle 9$ ,  $m\angle 8 = 41$



6.  $m\angle 2 = 4x - 26$ ,  
 $m\angle 3 = 3x + 4$



Determine whether the following statements are *always*, *sometimes*, or *never* true.

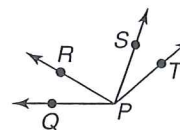
- Two angles that are supplementary form a linear pair. *Sometimes*
- Two angles that are vertical are adjacent. *Never true*

9. Copy and complete the following proof.

**Given:**  $\angle QPS \cong \angle TPR$

**Prove:**  $\angle QPR \cong \angle TPS$

**Proof:**



Statements	Reasons
a. $\angle QPS \cong \angle TPR$	a. <u>Given</u>
b. $m\angle QPS = m\angle TPR$	b. <u>Definition of Congruent <math>\angle</math>'s</u>
c. $m\angle QPS = m\angle QPR + m\angle RPS$ $m\angle TPR = m\angle TPS + m\angle RPS$	c. <u>Angle Addition Postulate</u>
d. $m\angle QPR + m\angle RPS = m\angle TPS + m\angle RPS$ $= m\angle RPS$	d. <u>Substitution</u>
e. $m\angle QPR = m\angle TPS$	e. <u>Subtraction</u>
f. $\angle QPR \cong \angle TPS$	f. <u>Definition of <math>\cong \angle</math>'s</u>