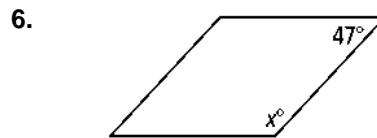
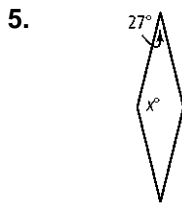
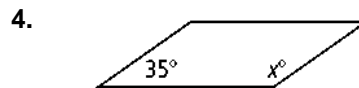
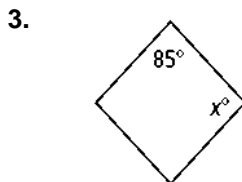
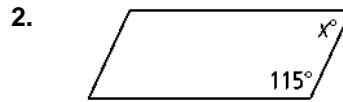
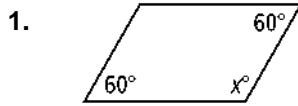


# 6-2 Practice

## Properties of Parallelograms

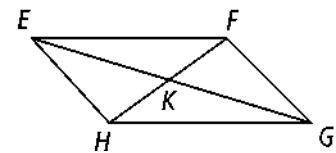
Form G

Find the value of  $x$  in each parallelogram.



Developing Proof Complete this two-column proof.

7. **Given:**  $\square EFGH$ , with diagonals  $\overline{EG}$  and  $\overline{HF}$



**Prove:**  $\triangle EFK \cong \triangle GHK$

Statements	Reasons
1) <u>?</u>	1) Given
2) <u>?</u>	2) The diagonals of a parallelogram bisect each other.
3) $\overline{EF} \cong \overline{GH}$	3) <u>?</u>
4) <u>?</u>	4) <u>?</u>

Algebra Find the values for  $x$  and  $y$  in  $\square ABCD$ .

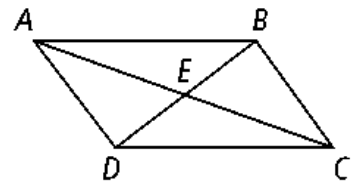
8.  $AE = 3x$ ,  $EC = y$ ,  $DE = 4x$ ,  $EB = y + 1$

9.  $AE = x + 5$ ,  $EC = y$ ,  $DE = 2x + 3$ ,  $EB = y + 2$

10.  $AE = 3x$ ,  $EC = 2y - 2$ ,  $DE = 5x$ ,  $EB = 2y + 2$

11.  $AE = 2x$ ,  $EC = y + 4$ ,  $DE = x$ ,  $EB = 2y - 1$

12.  $AE = 4x$ ,  $EC = 5y - 2$ ,  $DE = 2x$ ,  $EB = y + 14$



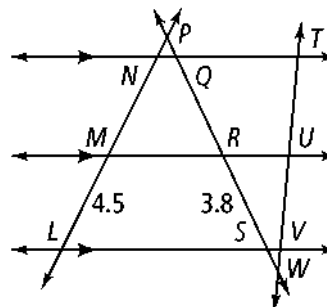
# 6-2 Practice (continued)

## Properties of Parallelograms

Form G

In the figure,  $TU = UV$ . Find each length.

13.  $NM$                       14.  $QR$   
 15.  $LN$                       16.  $QS$



Find the measures of the numbered angles for each parallelogram.

- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.

**25. Developing Proof** A rhombus is a parallelogram with four congruent sides. Write a plan for the following proof that uses SSS and a property of parallelograms.

**Given:** Rhombus  $ABCD$  with diagonals  $\overline{AC}$  and  $\overline{BD}$  intersecting at  $E$

**Prove:**  $\overline{AC} \perp \overline{BD}$

