Name _____ Class _____ Date _____

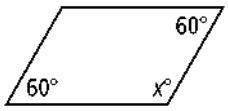
6-2 Practice

Form G

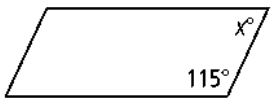
Properties of Parallelograms

Find the value of *x* in each parallelogram.

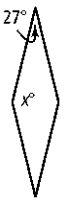
1.



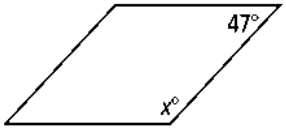
2.



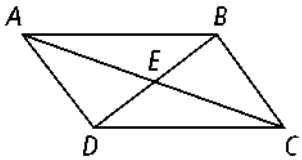
5.



6.



Developing Proof Complete this two-column proof.

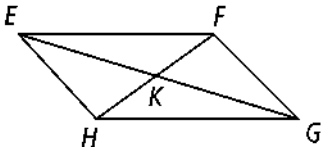


7. Given: $\square EFGH$, with diagonals $\overline{EG}$ and $\overline{HF}$

Prove: $\Delta EFK \cong \Delta GHK$

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

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



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

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

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

Name_____ Class _____ Date_____

6-2 Practice (continued)

Form G

Properties of Parallelograms

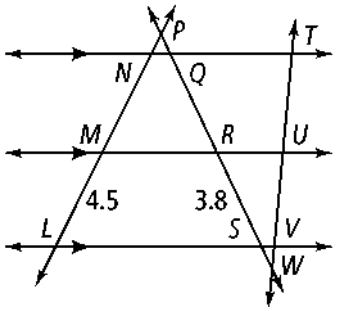
In the figure, *TU* = *UV*. Find each length.

13. *NM*

14. *QR*

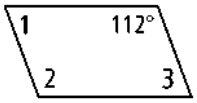
15. *LN*

16. *QS*

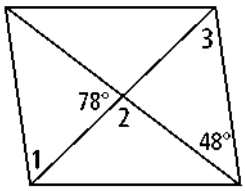


Find the measures of the numbered angles for each parallelogram.

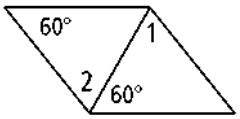
18.



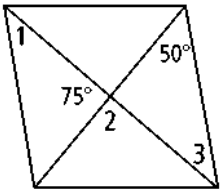
19.



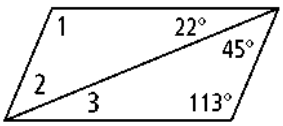
20.



21.



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