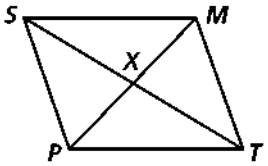
Name_____ Class_____ Date_____

Practice 6-3

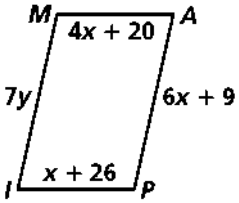
Proving That a Quadrilateral Is a Parallelogram

State whether the information given about quadrilateral *SMTP* is sufficient to prove that it is a parallelogram.



1. $\angle SPT \cong \angle SMT$
2. $\angle SPX \cong \angle TMX$, $\angle TPX \cong \angle SMX$
3. $\overline{SM} \cong \overline{PT}$, $\overline{SP} \cong \overline{MT}$
4. $\overline{SX} \cong \overline{XT}$, $\overline{SM} \cong \overline{PT}$
5. $\overline{PX} \cong \overline{MX}$, $\overline{SX} \cong \overline{TX}$
6. $\overline{SP} \cong \overline{MT}$, $\overline{SP} \parallel \overline{MT}$

Algebra **Find the values of *x* and *y* for which the figure must be a parallelogram.**

7.


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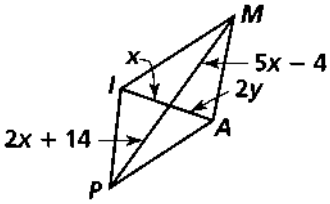

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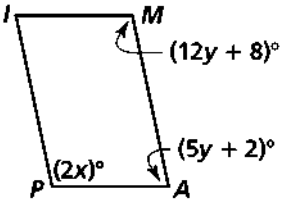
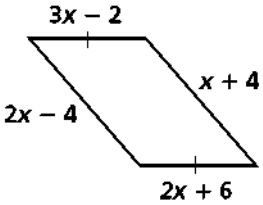


Algebra **Find the value of *x*. Then tell whether the figure must be a parallelogram. Explain your answer.**

10.


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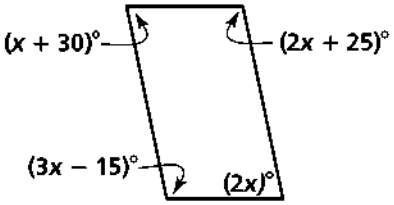

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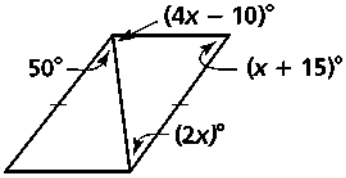
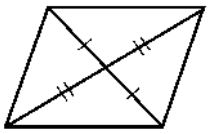


Decide whether the quadrilateral is a parallelogram. Explain your answer.

13.


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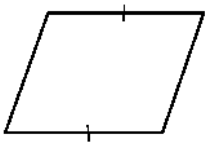

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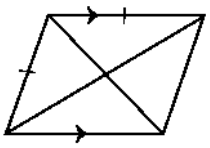

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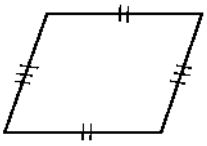

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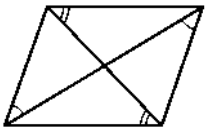

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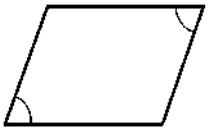

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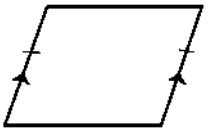

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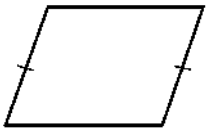

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