

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. *Explain! Use theorems!*

1. $\angle SPT \cong \angle SMT$

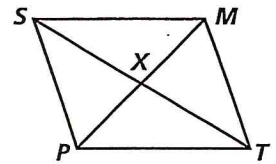
2. $\angle SPX \cong \angle TMX$, $\angle TPX \cong \angle SMX$

3. $\overline{SM} \cong \overline{PT}$, $\overline{SP} \cong \overline{MT}$

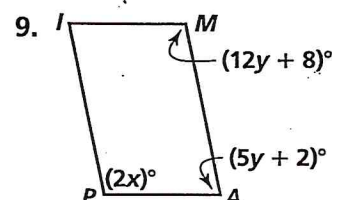
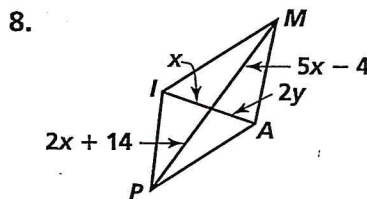
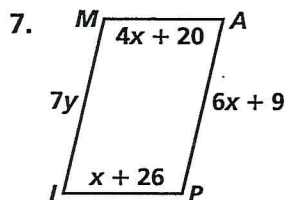
4. $\overline{SX} \cong \overline{XT}$, $\overline{SM} \cong \overline{PT}$

5. $\overline{PX} \cong \overline{MX}$, $\overline{SX} \cong \overline{TX}$

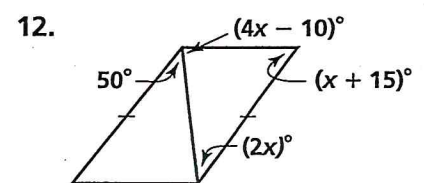
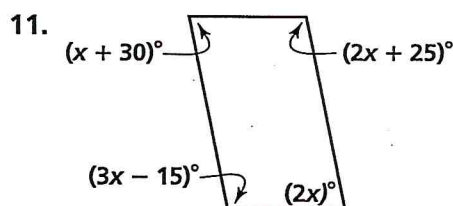
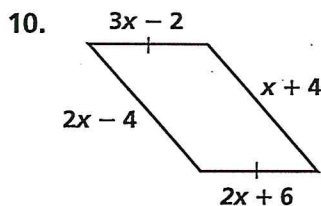
6. $\overline{SP} \cong \overline{MT}$, $\overline{SP} \parallel \overline{MT}$



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



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



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

