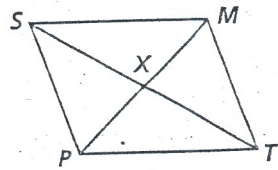


# Practice 6-3

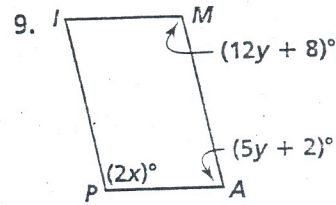
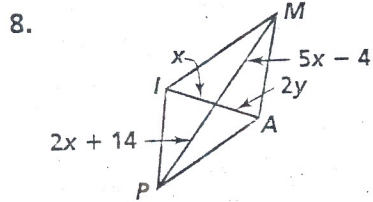
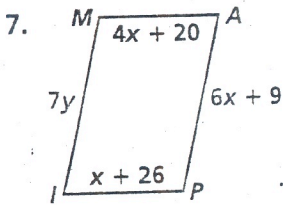
## Proving That a Quadrilateral Is a Parallelogram

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

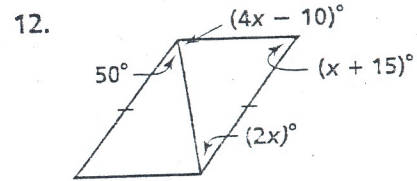
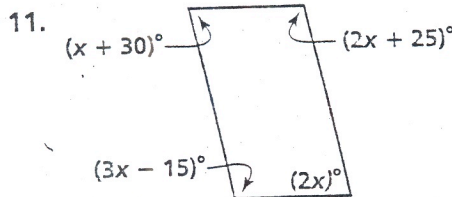
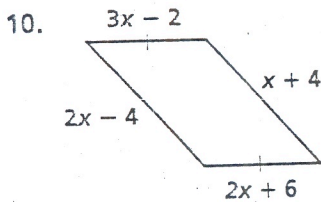


1.  $\angle SPT \cong \angle SMT$
2.  $\angle SPX \cong \angle TMX, \angle TPX \cong \angle SMX$
3.  $\overline{SM} \cong \overline{PT}, \overline{SP} \cong \overline{MT}$
4.  $\overline{SX} \cong \overline{XT}, \overline{SM} \cong \overline{PT}$
5.  $\overline{PX} \cong \overline{MX}, \overline{SX}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

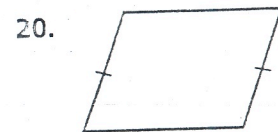
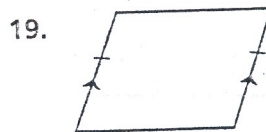
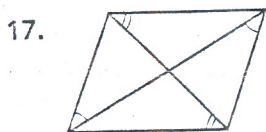
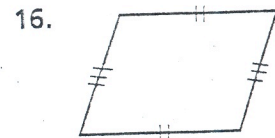
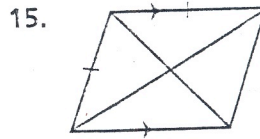
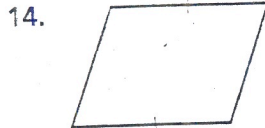
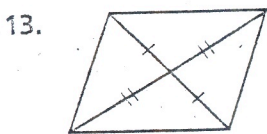
**Algebra** Find the values of  $x$  and  $y$  for which the figure must be a parallelogram.



**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.



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