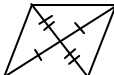
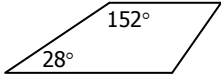
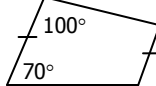
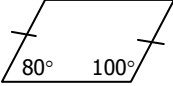
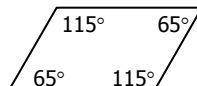
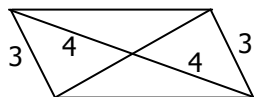
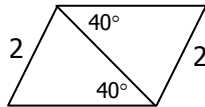
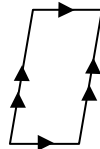


8.3 Worksheet Proving Parallelograms

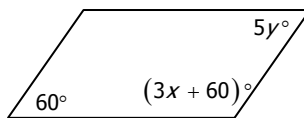
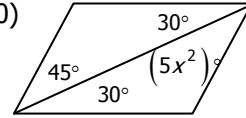
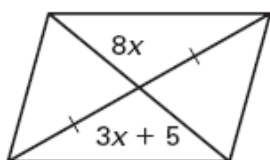
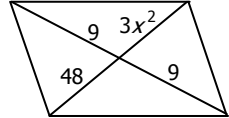
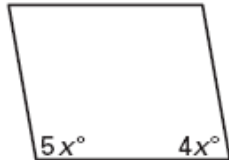
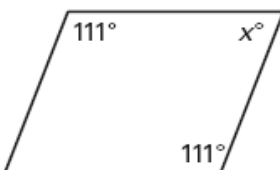
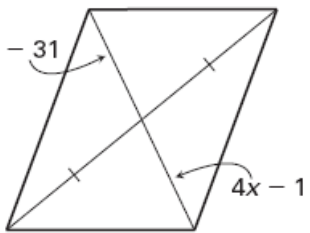
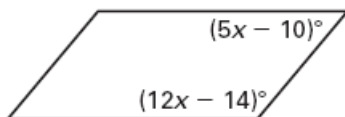
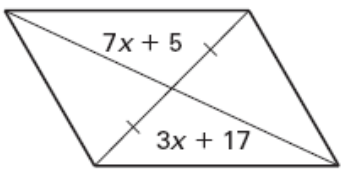
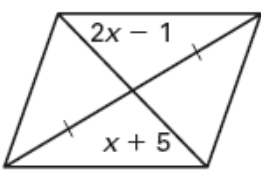
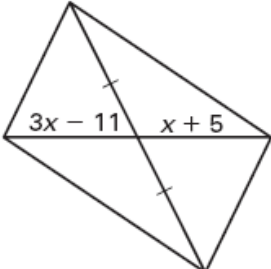
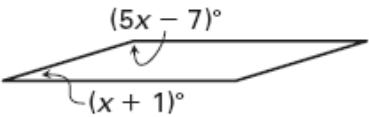
Name _____

Date _____ Period _____

Determine if each quadrilateral is a parallelogram. Explain why or why it does not work.

- 1)  2)  3)  4) 
- 5)  6)  7)  8) 

Find the value of x and y that ensure each quadrilateral is a parallelogram.

- 9)  10)  11) 
- 12)  13)  14) 
- 15)  16)  17) 
- 18)  19)  20) 

Draw a picture of each quadrilateral, to determine if it is a parallelogram by one of the following reasons. Be able to explain your selection.

- a) Opposite sides congruent.
- b) Opposite angles congruent.
- c) Diagonals bisect each other.
- d) One pair of opposite sides is both parallel and congruent.
- e) Both pairs of opposite sides are parallel.

21) In quadrilateral BLOT, $\overline{BL} \parallel \overline{TO}$, $m\angle BTO = 80^\circ$, and $m\angle LOT = 100^\circ$

22) In quadrilateral JOKE, $\overline{JO} \cong \overline{EK}$, $m\angle OJE = 65^\circ$, and $m\angle JEK = 115^\circ$.

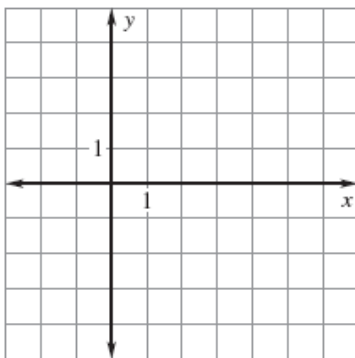
23) In quadrilateral SLOW, $\overline{SL} \cong \overline{LO} \cong \overline{OW} \cong \overline{SW}$.

24) In quadrilateral MOAT, \overline{MA} intersects \overline{OT} at R, $\overline{MR} \cong \overline{RA}$, and $\overline{TR} \cong \overline{OR}$.

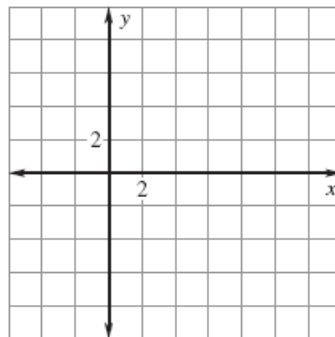
25) In quadrilateral CRAB, $m\angle RCB = 60^\circ$, $m\angle CBA = 120^\circ$, and $m\angle CRA = 120^\circ$.

Show that the following figure is a parallelogram.

26) $A(-2, -3)$, $B(0, 5)$, $C(6, 5)$, $D(4, -3)$



27) $A(-3, -4)$, $B(-1, 2)$, $C(7, 0)$, $D(5, -6)$



What theorem can you use to show that the quadrilateral is a parallelogram? (See top of page)

