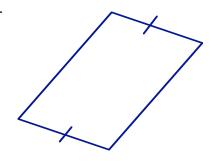
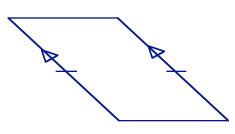
Determine if each quadrilateral is a parallelogram. If so, by which theorem(s)? If not, why?

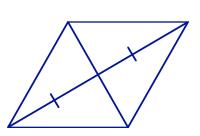
1.



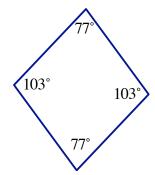
2.



3.

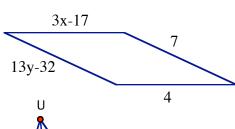


4.

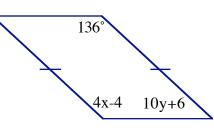


Find the values of x and y that ensure each quadrilateral is a parallelogram.

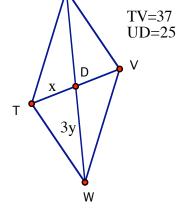
5.



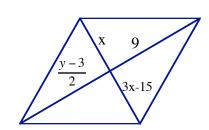
6.



7.

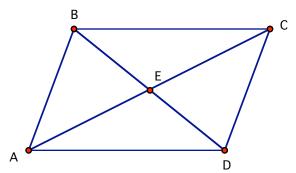


8.



For problems 9-13 use the given information to determine that quadrilateral ABCD is a parallelogram or not. If you are not given enough information write "can't determine."

- 9. AB=13, CD=13.
- 10. $m \angle ABE = m \angle EDC$, AD = BC
- 11. AE=12, EC=24
- 12. AB=BC, $m \angle BAD = m \angle BCD$
- 13. BD=2(BE), AC=2(EC)



For problems 14, 15 use the given information to determine that the quadrilateral is a parallelogram. If you are not given enough information write "can't determine."

- 14. Two consecutive pairs of angles are supplementary.
- 15. Opposite sides are parallel.