

**Practice C**

For use with pages 338–346

Decide whether you are given enough information to determine that the quadrilateral is a parallelogram.

1. Opposite sides are parallel.
2. Opposite sides are congruent.
3. Two pairs of consecutive sides are congruent.
4. Two pairs of consecutive angles are congruent.
5. Diagonals are congruent.
6. Diagonals bisect each other.
7. All four sides are congruent.
8. Consecutive angles are supplementary.

Prove that the points represent the vertices of a parallelogram.

Use a different method for each exercise.

9.  $A(-4, 7)$ ,  $B(3, 0)$ ,  $C(2, -5)$ , and  $D(-5, 2)$
10.  $A(-2, 8)$ ,  $B(2, 7)$ ,  $C(5, 1)$ , and  $D(1, 2)$

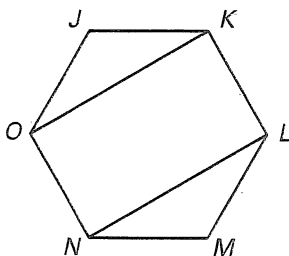
Find all the possible coordinates for the fourth vertex of a parallelogram with the given vertices.

11.  $(4, -1)$ ,  $(-4, 1)$ , and  $(0, 8)$
12.  $(3, -4)$ ,  $(-2, -1)$ , and  $(1, 2)$

Write a two-column or a paragraph proof.

13. Given: Regular hexagon  $JKLMNO$

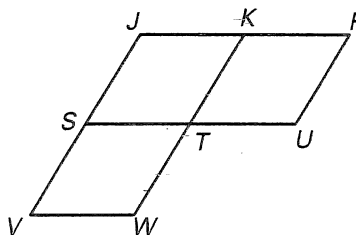
Prove:  $OKLN$  is a parallelogram.



14. Given:  $VWKJ$  and  $SJRU$

are parallelograms.

Prove:  $\angle W \cong \angle U$



15. Given:  $\square ABCD$

$E$  is the midpoint of  $AD$ .

$F$  is the midpoint of  $BC$ .

Prove: Quadrilateral  $ABFE$  is a parallelogram.

