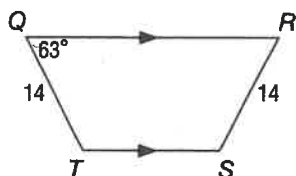


# 6-6 Skills Practice

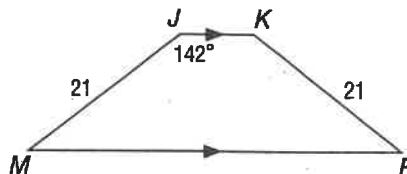
## Trapezoids and Kites

**ALGEBRA** Find each measure.

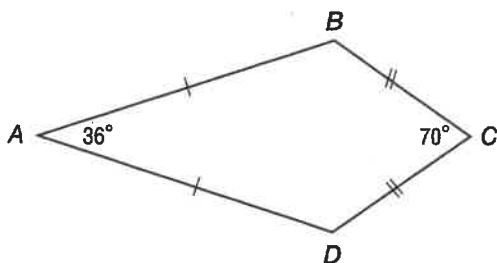
1.  $m\angle S$



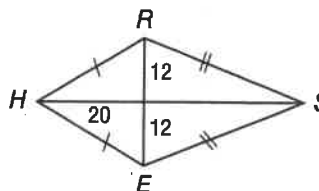
2.  $m\angle M$



3.  $m\angle D$

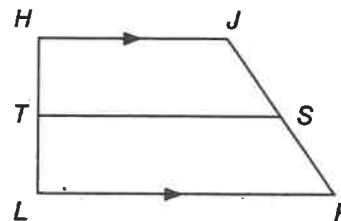


4.  $RH$



**ALGEBRA** For trapezoid  $HJKL$ ,  $T$  and  $S$  are midpoints of the legs.

5. If  $HJ = 14$  and  $LK = 42$ , find  $TS$ .
6. If  $LK = 19$  and  $TS = 15$ , find  $HJ$ .
7. If  $HJ = 7$  and  $TS = 10$ , find  $LK$ .
8. If  $KL = 17$  and  $JH = 9$ , find  $ST$ .



**COORDINATE GEOMETRY**  $EFGH$  is a quadrilateral with vertices  $E(1, 3)$ ,  $F(5, 0)$ ,  $G(8, -5)$ ,  $H(-4, 4)$ .

9. Verify that  $EFGH$  is a trapezoid.
10. Determine whether  $EFGH$  is an isosceles trapezoid. Explain.

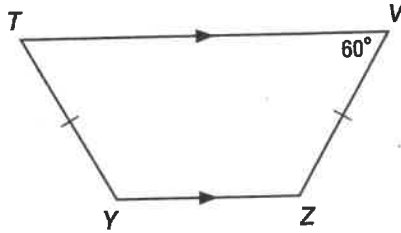
## 6-6

## Practice

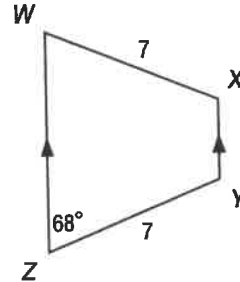
## Trapezoids and Kites

Find each measure.

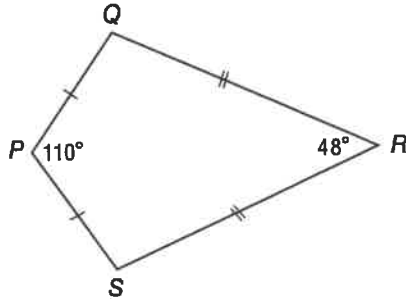
1.  $m\angle T$



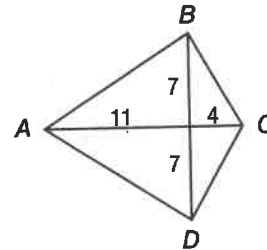
2.  $m\angle Y$



3.  $m\angle Q$

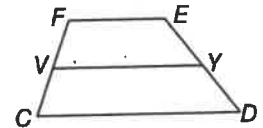


4.  $BC$



**ALGEBRA** For trapezoid  $FEDC$ ,  $V$  and  $Y$  are midpoints of the legs.

- If  $FE = 18$  and  $VY = 28$ , find  $CD$ .
- If  $m\angle F = 140$  and  $m\angle E = 125$ , find  $m\angle D$ .



**COORDINATE GEOMETRY**  $RSTU$  is a quadrilateral with vertices  $R(-3, -3)$ ,  $S(5, 1)$ ,  $T(10, -2)$ ,  $U(-4, -9)$ .

- Verify that  $RSTU$  is a trapezoid.
- Determine whether  $RSTU$  is an isosceles trapezoid. Explain.

**9. CONSTRUCTION** A set of stairs leading to the entrance of a building is designed in the shape of an isosceles trapezoid with the longer base at the bottom of the stairs and the shorter base at the top. If the bottom of the stairs is 21 feet wide and the top is 14 feet wide, find the width of the stairs halfway to the top.

**10. DESK TOPS** A carpenter needs to replace several trapezoid-shaped desktops in a classroom. The carpenter knows the lengths of both bases of the desktop. What other measurements, if any, does the carpenter need?