Name:_____

7.3 Practice Problems

1. State the theorem (or describe how you know) that proves each quadrilateral is a parallelogram.
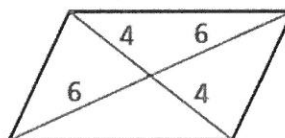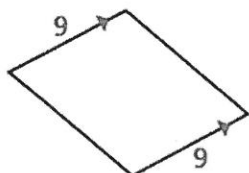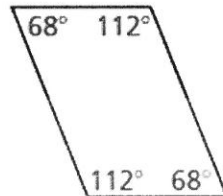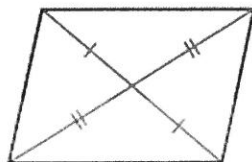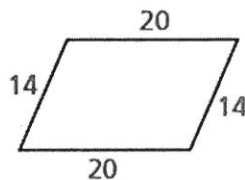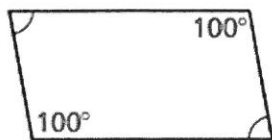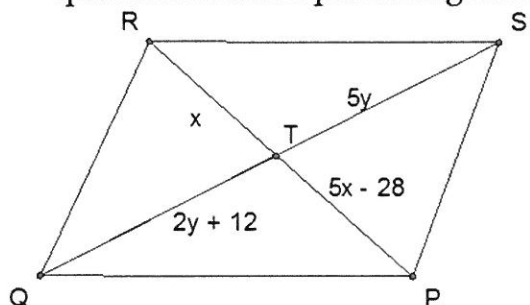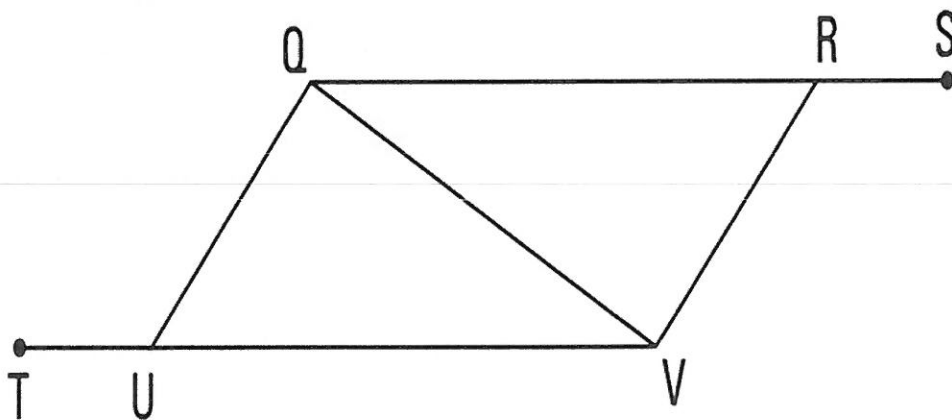

2. Find the values of x and y that ensures each quadrilateral is a parallelogram.
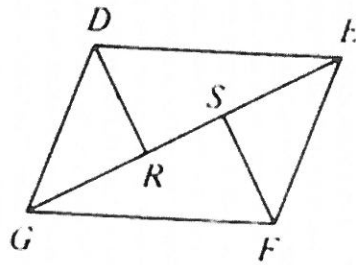

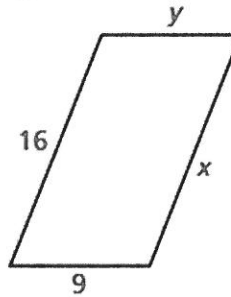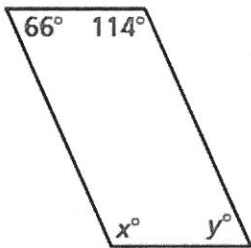3. Given: $\angle UQV \cong \angle RVQ$
    $\angle TUQ \cong \angle SRV$

    Prove: QRVU is a parallelogram

4. Given: $DEFG$ is a $\square$;
$\overline{DR} \perp \overline{GE}$;
$\overline{FS} \perp \overline{GE}$

Prove: $\overline{DR} \cong \overline{FS}$

5. Find x and y that proves each quadrilateral is a parallelogram.

6. Prove that the following coordinates are the vertices of a parallelogram.
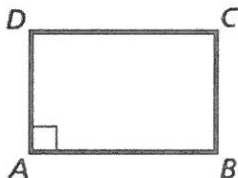
a) J(-2, 3), K(-5, 7), L(3, 6), M(6, 2)

b) N(-5, 0), P(0, 4), Q(3, 0), R(-2, -4)

7. **PROOF** Write a proof.

Given $ABCD$ is a parallelogram.
$\angle A$ is a right angle.

Prove $\angle B$, $\angle C$, and $\angle D$ are right angles.

8. Given : $NRSM$ is a parallelogram
$\angle 4 \cong \angle 5$

Prove : $ERAM$ is a parallelogram