$\qquad$ Class $\qquad$ Date $\qquad$

## Practice 9-4

## Ëxamplëëxercises

## Example 1

Find the measures of $\angle 1$ and $\angle 2$.
1.

2.

3.

4.

5.

6.

7.

8.


## Example 2

9. Complete the following two-column proof of Theorem 9-17:

The diagonals of an isosceles trapezoid are congruent.


Given: Isosceles trapezoid QRST with $\overline{\mathrm{QR}} \cong \overline{\mathrm{ST}}$.
Prove: $\overline{\mathrm{QS}} \cong \overline{\mathrm{RT}}$

| Statements | Reasons |
| :--- | :--- |
| 1. $\overline{\mathrm{QR} \cong \overline{\mathrm{ST}}}$ | a. |
| 2. $\angle \mathrm{RQT} \cong \angle \mathrm{STQ}$ | b. |
| c. $\overline{\mathrm{QT} \cong \square}$ | 3. Reflexive Property of Congruence |
| 4. $\triangle \mathrm{RQT} \cong \triangle \mathrm{STQ}$ | d. |
| e. | 5. CPCTC |

## Example 3

Find the height of each isosceles trapezoid.
10.

11.

12.

13.

14.

15.


