Name $\qquad$ Date $\qquad$

## Right Triangles

## Proving Right Triangles Congruent

 Independent Practice1. Use the diagram to prove that $\triangle C A S \cong T A S$.

Given: $\overline{C S} \cong \overline{S T}$ and $m \angle C A S=m \angle T A S=90^{\circ}$
Prove: $\triangle C A S \cong \triangle T A S$

| Statement | Reason |
| :--- | :--- |
| 1. | 1. |
| 2. | 2. |
| 3. | 4. |
| 5. | 5. |
| 6. | 6. |

2. Determine the congruence information that is needed to show that the two triangles are congruent by the HL Theorem in two different ways.

3. Consider the following diagram.


Find the values of $f$ and $g$ that prove the two triangles congruent by the HL Theorem.
4. Consider the following diagram.


Find the values of $m$ and $n$ that prove the two triangles congruent by the HL Theorem.

