**Activity 2.2.2 Applying the SAS Congruence Theorem**

*In this activity you will use the SAS Congruence Theorem to make claims about triangles.*

*Examples are shown in each section*

**Section 1**: Use the SAS Congruence Theorem to prove that the triangles shown are congruent

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 1. |  |  | Given  Given  Given  SAS |
| 2. |  |  |  |
| 3. |  |  |  |
| 4. |  |  |  |

**Section 2**: Prove that the specified angles or segments are congruent

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 5. |  |  | Prove:  Given  Given  Given  SAS  CPCTC |
| 6. |  |  | Prove: |
| 7. |  |  | Prove: |
| 8. |  |  | Prove: |

**Section 3**: Show how the triangles shown can be proved congruent using the SAS Congruence Theorem, or explain why the information given is not sufficient.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 9. |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| 16 |  |  |  |