**Activity 2.2.4 Applying the ASA and SAS Congruence Theorems**

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

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

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

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 5. |  |  | Prove: $\overbar{AC}≅\overbar{FG}$ |
| 6. |  |  | Prove: $\overbar{BC}≅\overbar{EF}$ |
| 7. |  |  | Prove: $∡ACB≅∡FGH$ |
| 8. |  |  | Prove: $∡PRQ≅∡XZY$ |

**Section 3**: Prove that the triangles shown are congruent using SAS or ASA, or explain why the information given is not sufficient to prove that the triangles are congruent.

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

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