**Activity 2.4.5 Using the SSS Triangle Congruence Theorem**

**Warmup** From the six abbreviations below, pick the valid congruence theorems and summarize them below.

 ***ASA SAS SAA SSA SSS AAA***

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*In this activity you will use the congruence theorems to make claims about pairs of triangles.*

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

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

**Section 2**: Use the appropriate congruence theorem to prove that the triangles are congruent.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 5. |  |  |  |
| 6. |  |  |  |
| 7. |  |  |  |
| 8. |  |  |  |

**Section 3**: If possible, prove that the specified angles or segments are congruent.

|  |  |  |  |
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|  | **Triangle #1** | **Triangle #2** | **Proof** |
| 9. |  |  | Prove: $∡ABC≅∡DEF$ |
| 10 |  |  | Prove: $\overbar{AC}≅\overbar{XY} $ |
| 11 |  |  | Prove: $∡BAC≅∡RPQ$ |
| 12 |  |  | Prove: $\overbar{AB}≅\overbar{YZ}$ |