So far we have 2 ways to prove that triangle are congruent.

|  |  |
| --- | --- |
| Side-Side-Side Congruence Theorem (**SSS**) | Side-Angle-Side Congruence Theorem (**SAS**) |
| https://classconnection.s3.amazonaws.com/810/flashcards/851810/jpg/sss1329308767188.jpg | https://dr282zn36sxxg.cloudfront.net/datastreams/f-d%3Af96a4f9384d48030581ec88535027760a5f4b3bbf553accb3cb8bf39%2BIMAGE%2BIMAGE.1 |
| Congruence Statement:  | Congruence Statement:  |

What if we know that two pairs of corresponding angles and one pair of corresponding sides are congruent?

1. Use a ruler to measure and make an exact copy of line segment  next to it. Call the new segment . Mark the two line segments congruent.
2. Use a protractor to draw a 25° angle at points A and A’. Mark these two angles congruent.
3. Use a protractor to draw a 45° angle at points B and B’. Mark these two angles congruent.
4. Extend the angles far enough to make  and .



Measure the remaining sides and angles of each triangle. Mark any pairs of congruent sides or angles that you find.

Are the two triangles congruent? How do you know?

Write a congruence statement for the two triangles.

We now have a third way to prove that triangles are congruent: **If two triangles have two pairs of corresponding angles and one pair of corresponding sides, then the triangles are congruent**.





