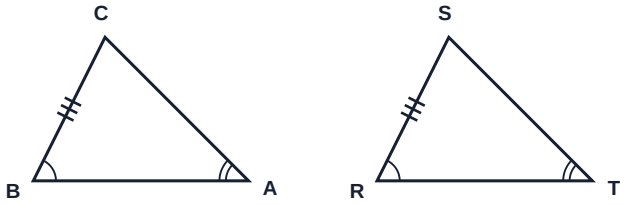
Math Sheet

Name: _____ Date: _____

Congruent Triangles

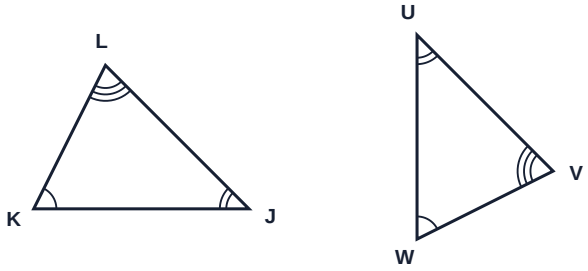
Use only the marked givens. For identify tasks, justify and match vertices. For completion tasks, add an equality for the stated triangle correspondence.

1. Do the marked givens prove congruence? Give a reason and write the correspondence if they do.



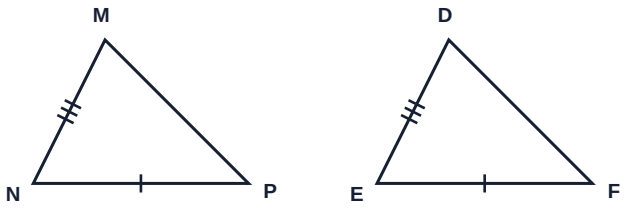
Reason and correspondence:

2. Do the marked givens prove congruence? Give a reason and write the correspondence if they do.



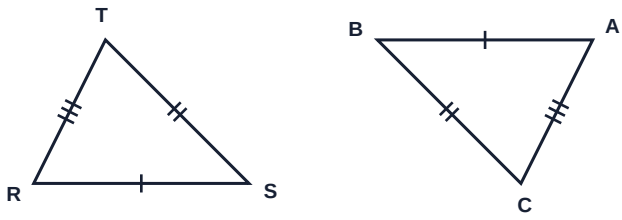
Reason and correspondence:

3. Prove triangle NPM congruent to triangle EFD by SAS. Add one missing equality.



One missing equality:

4. Do the marked givens prove congruence? Give a reason and write the correspondence if they do.



Reason and correspondence:

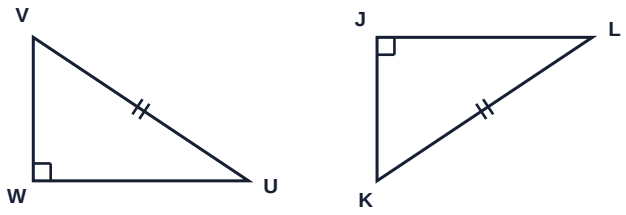
Diagrams are not to scale. Use the stated facts and marks.

Name: _____ Date: _____

Congruent Triangles

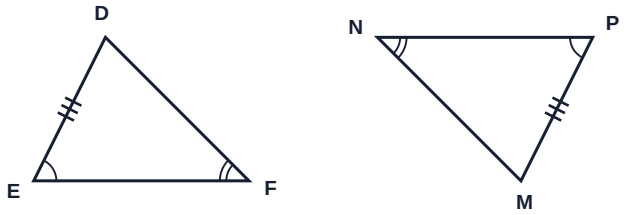
Use only the marked givens. For identify tasks, justify and match vertices. For completion tasks, add an equality for the stated triangle correspondence.

5. Prove triangle WUV congruent to triangle JLK by HL. Add one missing equality.



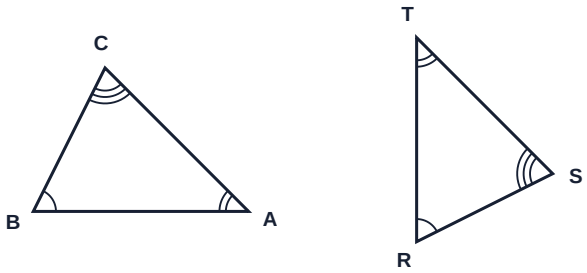
One missing equality:

6. Do the marked givens prove congruence? Give a reason and write the correspondence if they do.



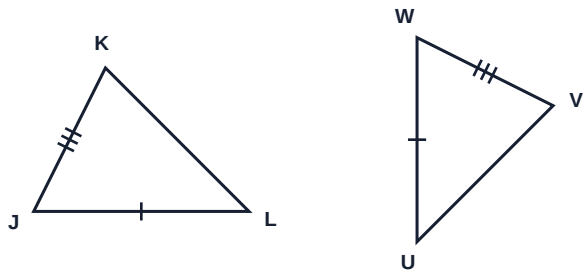
Reason and correspondence:

7. Do the marked givens prove congruence? Give a reason and write the correspondence if they do.



Reason and correspondence:

8. Prove triangle JLK congruent to triangle WUV by SAS. Add one missing equality.



One missing equality:

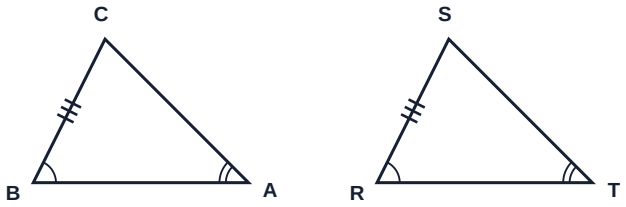
Diagrams are not to scale. Use the stated facts and marks.

Name: _____ Date: _____

Congruent Triangles - Worked Key

Use these worked explanations to check the matching numbered questions.

1. Worked solution

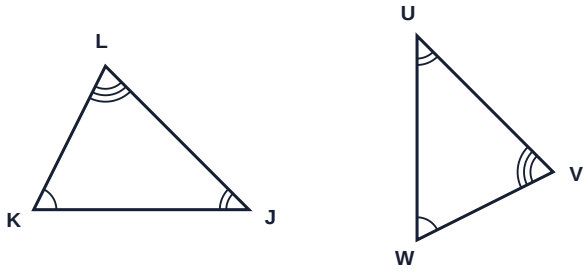


One valid reason: AAS.

Two corresponding angle pairs and a nonincluded side are equal.

triangle BAC is congruent to triangle RTS.

2. Worked solution

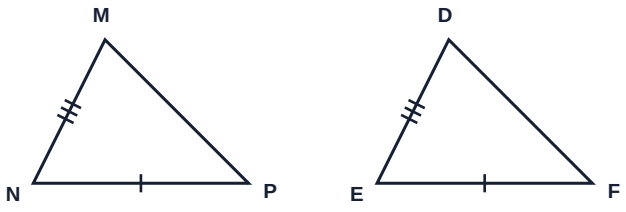


Not enough information.

AAA fixes shape, not size. A larger similar triangle has the same angles, so congruence is not established.

This does not prove the triangles are different; it means the information is insufficient.

3. Worked solution

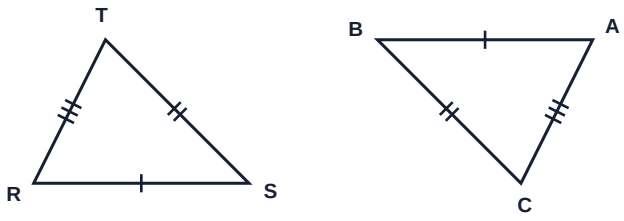


Add angle N = angle E.

Two corresponding side pairs and their included angle are equal.

Then triangle NPM is congruent to triangle EFD.

4. Worked solution



One valid reason: SSS.

All three corresponding side pairs are equal.

triangle RST is congruent to triangle ABC.

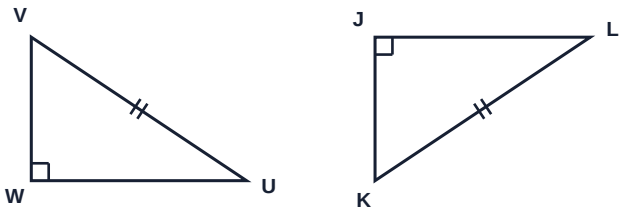
Diagrams are not to scale. Use the stated facts and marks.

Name: _____ Date: _____

Congruent Triangles - Worked Key

Use these worked explanations to check the matching numbered questions.

5. Worked solution

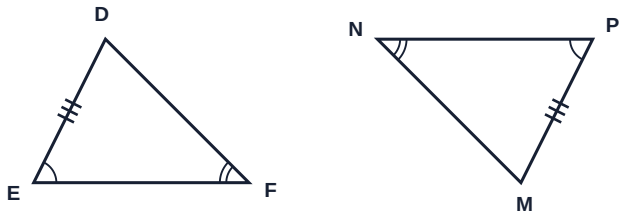


Add WU = JL OR VW = KJ.

Both triangles are right triangles, with equal hypotenuses and one equal leg pair.

Then triangle WUV is congruent to triangle JLK.

6. Worked solution

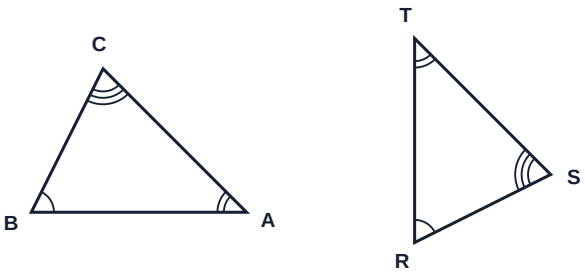


One valid reason: AAS.

Two corresponding angle pairs and a nonincluded side are equal.

triangle EFD is congruent to triangle PNM.

7. Worked solution

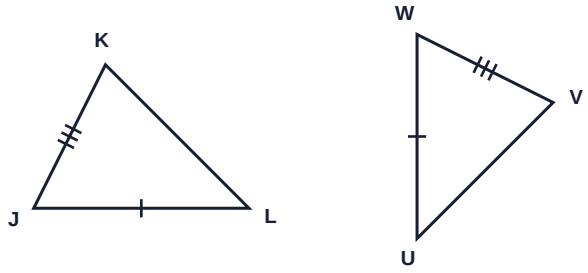


Not enough information.

AAA fixes shape, not size. A larger similar triangle has the same angles, so congruence is not established.

This does not prove the triangles are different; it means the information is insufficient.

8. Worked solution



Add angle J = angle W.

Two corresponding side pairs and their included angle are equal.

Then triangle JLK is congruent to triangle WUV.

Diagrams are not to scale. Use the stated facts and marks.