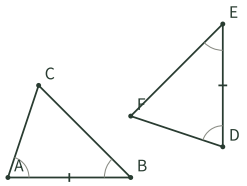
Congruence: ASA, AAS and right-triangle HL — Further practice

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Further practice 11

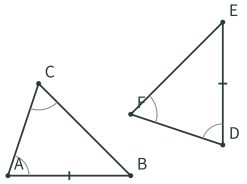
Write the two equal-angle pairs, their included side and the ASA conclusion.



Geometry diagram; not drawn to scale except for construction tasks.

Further practice 12

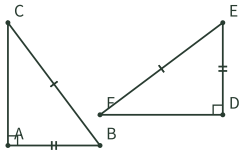
Write an AAS proof and explain why AB is a non-included side here.



Geometry diagram; not drawn to scale except for construction tasks.

Further practice 13

List the right angles, hypotenuses and equal legs before the HL conclusion.

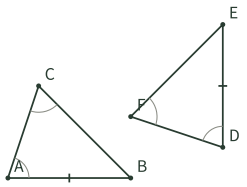


Geometry diagram; not drawn to scale except for construction tasks.

Further practice 14

After the AAS proof, which additional angle equality follows?

A. $\angle ABC = 90°$
B. $\angle ABC = \angle DEF$
C. $\angle ABC = \angle DFE$
D. $\angle ABC = \angle EDF$



Geometry diagram; not drawn to scale except for construction tasks.

Extension 15

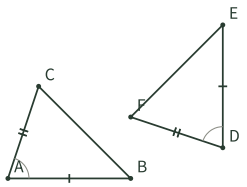
The marked two side pairs and their included angle already give SAS. Which extra side equality would ALSO allow a direct SSS proof?

A. The triangles have equal areas only.

B. The shapes look the same.

C. BC=EF

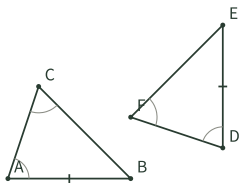
D. ∠ABC=∠DEF only



Geometry diagram; not drawn to scale except for construction tasks.

Extension 16

Give an alternative proof of the marked AAS result: first obtain the third angle pair, then use ASA.



Geometry diagram; not drawn to scale except for construction tasks.