

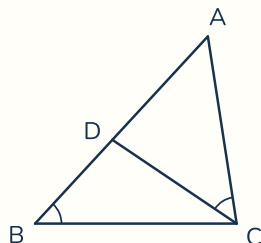
Geometry — Similarity proofs

Name: _____

Date: _____

Read each proof and choose the missing reason.

1



Given $\angle ACD \cong \angle B$
Prove $\triangle ACD \sim \triangle ABC$

Statements

Reasons

1. $\angle A \cong \angle A$

Reflexive Property

2. $\angle ACD \cong \angle B$

?

3. $\triangle ACD \sim \triangle ABC$

AA ~

Reason for step 2:

Given

Reflexive Property

Vertical Angles

Corresponding Angles

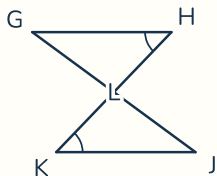
Alternate Interior Angles

AA ~

SAS ~

SSS ~

2



Given $\angle GHL \cong \angle JKL$
Prove $\triangle GHL \sim \triangle JKL$

Statements

Reasons

1. $\angle GHL \cong \angle JKL$

Given

2. $\angle GLH \cong \angle JLK$

?

3. $\triangle GHL \sim \triangle JKL$

AA ~

Reason for step 2:

Given

Reflexive Property

Vertical Angles

Corresponding Angles

Alternate Interior Angles

AA ~

SAS ~

SSS ~



Similarity proofs — Answer key

1. $\triangle ACD \sim \triangle ABC$ ($\angle ACD \cong \angle B$), step 2: Given

2. $\triangle GHL \sim \triangle JKL$ ($\angle GHL \cong \angle JKL$), step 2: Vertical Angles

