Name:

Date:

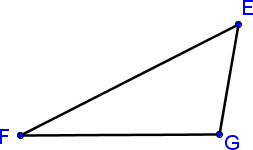
School:

Facilitator:

6.05 Proving Triangles Congruent Part 1

# Total Points: 44

**List the included angle between the given sides.**

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Is there enough information to prove the triangles congruent (yes or no). If yes, list SSS or SAS as the method used to prove them congruent. Fill in the congruent parts and the congruence statement. Then identify the rigid transformation: Reflection, Rotation, or Translation.

Triangles DCE and FGH
• Segment CD has 1 congruence mark.
• Segment EC has 2 congruence marks.
• Segment FG has 2 congruence marks.
• Segment GH has 1 congruence  mark.
• Angle C has 1 congruence arc.
• Angle G has 1 congruence arc.



**3**. Are the triangles congruent?

Method used:

Identify the congruent parts.

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∆      ≅ ∆      by       Postulate

Transformation:

Triangles MPN and PNO
• Segment MN has 1 congruence mark.
• Segment PM has 2 congruence marks.
• Segment PO has 2 congruence marks.
• Segment NO has 1 congruence  mark.
• The traingles share a side, segment PN. 

**4**. Are the triangles congruent?

Method used:

Identify the congruent parts.

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∆      ≅ ∆      by       Postulate

Transformation:

**Triangles ABC and EFD in a coordinate plane
•  The coordinates of  the vertices are 
A (negative 2, 5) , B (negative 5, 2), C (NEGATIVE 3, 2), D(5, 2), E(2, 3) and F(2, 5).**

**5**. Identify the transformation:

**6**. Verify that these triangles are congruent using the distance formula. You will need to prove that all three sides are congruent.

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Description automatically generateda. Identify the first congruent pair.

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length of =

length of       =

**Show work below.**

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Description automatically generatedb. Identify the second congruent pair.

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length of =

length of       =

**Show work below.**

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Description automatically generatedc. Identify the third congruent pair.

≅

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**Show work below.**

d. Complete the congruence statement. ∆ABC ≅ ∆      by       Postulate