**Geometry** (G.CO.6,7)Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Unit 1B – Polygon Congruence (HW2)** Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

Find the indicated side lengths and angle measures.

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| 1. ΔABC ΔDEF. Find AB and mE.  AB =  mE =  Describe a transformation or composition or transformations that would map one triangle to the other. |
| 2. ΔMNP ΔQRS. Find NP and mP.  NP =  mP =  Describe a transformation or composition or transformations that would map one triangle to the other. |
| 3. ΔJKL ΔLMJ. Find JK and mJLM.  JK =  mJLM =    Describe a transformation or composition or transformations that would map one triangle to the other. |
| 4. ΔGEO ≅ ΔFUN and EG = 5x – 2, FN = 4x + 3, UF = 10x – 17. Find GO.  U  N  F  O  E  G |
| 5. List all the information that you know as a result of the congruence statement: ΔJWT ΔGKH. |
| 6. **ABC is congruent to another triangle. Provided is some information about the two triangles,  and . From this information determine the triangle congruence statement.**  ABC ≅ \_\_\_\_\_\_\_\_ |
| |  |  |  | | --- | --- | --- | | **7. Name the transformation or sequence of transformations that map one figure onto the other. Then complete the congruence statement.** | | | |  |  |  | | **Transformations:**  ABC ≅ \_\_\_\_\_\_\_ | **Transformations:**  ABC ≅ \_\_\_\_\_\_\_ | **Transformations:**  ABC ≅ \_\_\_\_\_\_\_ | |
| 8. The figure shows a portion of the truss of a bridge.   ∆ABG ∆BCH ∆HGB.   1. Is it possible to determine the measure of  GBH? Why or why not? 2. A student claims that B is the midpoint (the point that divides a segment exactly in half or into two equal pieces) of . Do you agree? Explain. |