**Geometry** (G.CO.6-8)Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**Unit 1B –Rigid Motion & Congruence Review (HW6)** Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

Use the definition of congruence in terms of rigid motions to determine whether the two figures are congruent (circle your answer), explain your answer in terms of specific rigid motion(s), and write a congruence statement.

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| 1. Congruent Not Congruent (Pre-image shaded) Rigid Motion(s): T<5,3>  Congruence Statement: JMLK $≅$ PSRQ |
| 2.  Congruent Not Congruent Explanation: Ro,90°CW ○ T<0, -1> Congruence Statement: ∆KHJ $≅$ ∆GDF |
| 3. Given that $∆PQR≅∆STU$, PQ = 2.7 ft, PR = 3.4 ft, and $m∠T=35°$, what other sides and/or angles do you know the measure of? What are the measures of those sides/angles?PQ = ST so ST = 2.7ft m<T = m<Q so m<Q = 35°PR = SU so SU = 3.4 ft |
| 4. Given that $∆SEW≅∆FAR$, $m∠E=5(x-2)$, $m∠W=3x+14$, and m$∠R=7x-34$, find $m∠S.$ m<W = m<R m<S = m<F (but we don’t know m<F)3x + 14 = 7x – 34 m<S + m<E + m<W = 180°48 = 4x m<S + 50 + 50 = 180°X = 12 m<s = 80° |
| 5. Given $∆$DEF $≅∆$MNP. Complete the following statements. $$=$$$≅$ $$=$$$≅$ $$=$$$≅$ $$=$$$$≅$$a) ∠F ∠ \_P\_\_\_ b) NP \_ EF\_\_\_ c) m∠M ∠ \_\_ D\_\_ d)  \_\_ PM\_ |
| 6. Given $∆WXY≅∆LMN$, write as many statements about congruent corresponding parts as possible.<W $≅$ <L, <X $≅$ <M, <Y $≅$ <N, WX $≅$ LM, XY $≅$ MN, WY $≅$ LN |
| 7. Given: $\overbar{GE}$ bisects $∠DGF$ and $∠DEF$  CONGRUENT NOT CONGRUENT Shortcut: \_\_\_ ASA \_\_\_\_\_\_\_\_\_\_\_ $∆DGE≅∆FGE\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$  Additional Reason(s):  Angle bisector, Reflexive property |
| 8. Given: M is the midpoint of $\overbar{RT}$ and $∆SRT$ is isosceles with base $\overbar{RT}$  CONGRUENT NOT CONGRUENT Shortcut: \_\_\_\_ SSS or SAS\_\_\_\_ $∆MRS≅\\_∆MTS\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$  Additional Reason(s):  Isosc. ∆ def and thm (for sides and/or angles) Midpoint def, reflexive prop (if SSS)  |
|  9.   CONGRUENT NOT CONGRUENT Shortcut: \_\_ None\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $∆ABD≅\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$  Additional Reason(s):  Reflexive property  |
| 10. Suppose that $∆XYZ≅∆VZY$. 100°80°50°50°10Z6V850⁰30⁰XWY9* 1. $m∠V=30°$ d. $m∠XYW=50°$

6* 1. $m∠VYZ=50°$ e. VZ = 10

830°* 1. VY = 14
 |
| 1. CONGRUENT NOT CONGRUENT

 Shortcut: \_\_ None \_\_\_\_\_\_\_ $∆FGH≅\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$  Additional Reason(s):    Vertical angles thm.  |  |
| 1. CONGRUENT NOT CONGRUENT

 Shortcut: \_ SSS \_\_\_\_\_\_\_\_ $∆EGH≅∆GEF$  Additional Reason(s):  Reflexive property  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |  |
| 13. Given: B is the midpoint of $\overbar{AD}$, $∠C≅∠E$, $∠A≅∠DBE$ CONGRUENT NOT CONGRUENT Shortcut: AAS \_\_\_\_\_\_\_\_\_\_ $∆ABC≅∆BDE$  Additional Reason(s):  Midpoint definition  |  |
| 14. Given: $∠MQN≅∠KRL$, $∠N≅∠L$, $\overbar{KQ}≅\overbar{MR}$ CONGRUENT NOT CONGRUENT Shortcut: AAS \_\_\_\_\_\_\_\_\_ $∆KLR≅∆MNQ$ \* Additional Reason(s): \* Overlapping seg. thm.  |  |