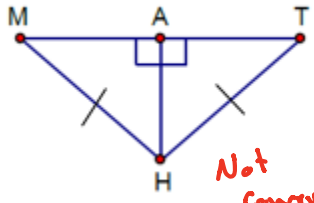
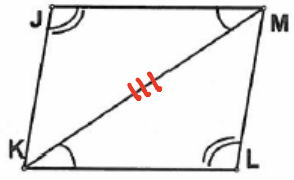
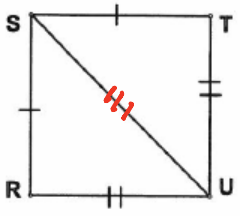
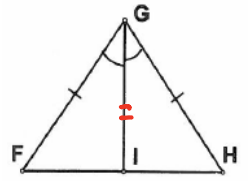
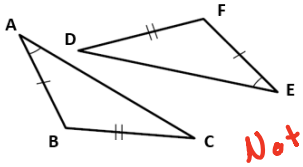
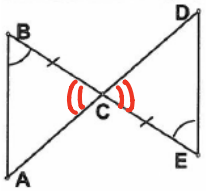
Math 2
Unit 4B Quiz Review

Name: Key
Date: _____

For questions $1-4$, $\Delta ABC \cong \Delta XYZ$.

| | | |
|---|---|---|
| 1) | $m\angle A = 108$<br>$m\angle B = 42$<br>$AB = 4$<br>$BC = 54$<br>$perimeter\ of\ \Delta ABC = 75$ | $m\angle X =$ 108°<br>$m\angle Y =$ 42°<br>$m\angle Z =$ 30°<br>$XY =$ 4<br>$YZ =$ 54<br>$XZ =$ 17 |
| 2) | $m\angle A = 11x - 46$<br>$m\angle X = 6x + 34$<br>$AC = 2y + 11$<br>$XZ = 6y - 37$ | $x =$ 16<br>$m\angle A =$ 130°<br>$m\angle X =$ 130°<br>$y =$ 12<br>$AC =$ 35<br>$XZ =$ 35 |
| 3) | $m\angle A = 74$<br>$m\angle B = 83$<br>$m\angle Z = 2x + 5$<br>$AB = x + 8$<br>$XZ = 5x - 12$ | $x =$ 9<br>$m\angle X =$ 74°<br>$m\angle Y =$ 83°<br>$m\angle Z =$ 23°<br>$XY =$ 17<br>$XZ =$ 33 |
| 4) | $m\angle A = 5x + 47$<br>$m\angle B = 4x + 6$<br>$m\angle C = 5y - 4$<br>$m\angle X = 92$<br>$AB = y + 11$<br>$BC = 4x - 1$ | $x =$ 9<br>$y =$ 10<br>$m\angle Y =$ 42°<br>$m\angle Z =$ 46°<br>$XY =$ 21<br>$YZ =$ 35 |

Determine if the following triangles are congruent. If yes, make a congruency statement and give the reason why they are congruent. If they are not congruent, write "not congruent".

| | | | | | |
|---|---|---|---|---|---|
| 5) |  | 6) |  | 7) |  |
| | $\Delta MAH \cong \Delta$ Not congruent by _____ | | $\Delta JKM \cong \Delta$ LKM by AAS | | $\Delta RSU \cong \Delta$ TSU by SSS |
| 8) |  | 9) |  | 10) |  |
| | $\Delta FGI \cong \Delta$ HGI by SAS | | $\Delta ABC \cong \Delta$ Not congruent by _____ | | $\Delta ABC \cong \Delta$ DEC by ASA |