Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Unit 7 HW Handout #3**

Monica

Geometry Period:\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Answer all of the questions below. Write your answers in simplest form whenever necessary. Be sure to show all of your work.

 1) In the diagram below of , *Q* is a point on , *S* is a point on , is drawn, and .

Which reason justifies the conclusion that ?

|  |  |
| --- | --- |
| 1) | AA |
| 2) | ASA |
| 3) | SAS |
| 4) | SSS |

**

2) In the diagram of  and  below,  and  intersect at *C*, and . Which method can be used to show that  must be similar to ?

|  |  |
| --- | --- |
| 1) | SAS |
| 2) | AA |
| 3) | SSS |
| 4) | HL |



 3) In  and , . Which additional information would prove ?

|  |  |
| --- | --- |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |

 4) In the accompanying diagram, ** and  and ** intersect at point *T*. Prove that .

**

 5) In the diagram below of , *D* is a point on , *E* is a point on , ,  inches,  inches, and  inches. Find, to the *nearest tenth of an inch*, the length of .



d

6) In the diagram below of right triangle *ABC*,  is the altitude to hypotenuse , , and . What is the length of ?



7) In the diagram below of right triangle *ABC*, altitude  is drawn to hypotenuse , , and . What is the length of ?

