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

Similarity Proofs & Properties Worksheet

For numbers 1-6 set up and solve an equation to find the value of $x$



1. 2.

**



3. 4.



5. 6.

7. Given $\overbar{BA}∥\overbar{CD}$

 Prove: $∆ABE\~∆DCE$



8. Given: $AB=1 ;AD=7$; $AC=2 ;CF=12$

 Prove: $\frac{AB}{BD}=\frac{BC}{DF}$



9. Given: $AC=16 ;DF=4$; $AB=12 ;DE=3$

 ∠A ≅ ∠D

Prove: $∠B≅∠E$

10. Given: $\overbar{NP}$ is the midsegment of $∆OMQ$

 Prove: $\overbar{NP}∥\overbar{MQ}$

