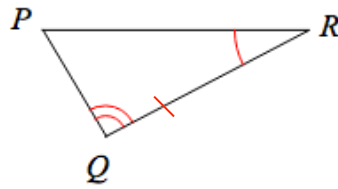
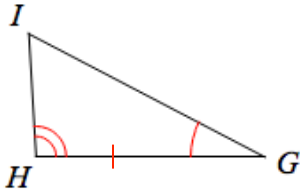


**Geometry – Congruent Triangles**  
**12b Homework: Triangle Congruence Theorems**

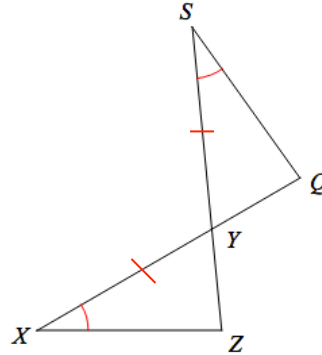
Name \_\_\_\_\_  
 Pd \_\_\_\_\_ Date \_\_\_\_\_

In 1 – 4, state what you know about the measurements of the sides and/or angles. Use that information to prove the triangles are congruent using one of your four methods: SSS, SAS, ASA, and AAS. Write a congruence statement for each followed by each the reason you know the triangles are congruent.

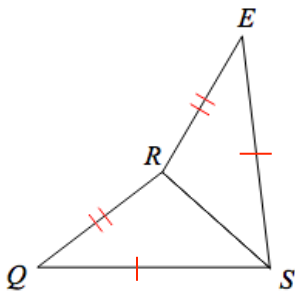
1.



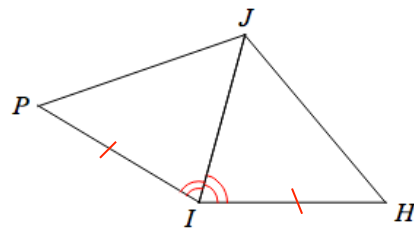
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3.

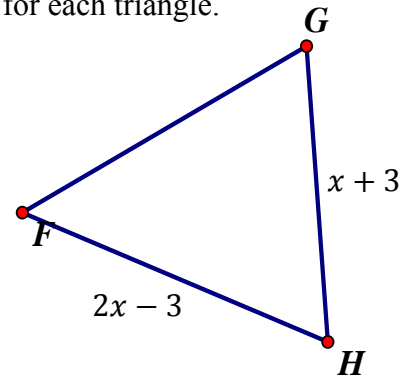
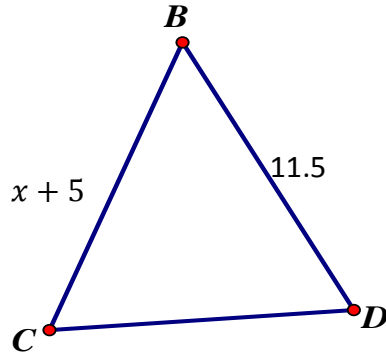


4.



5. What does CPCTC mean?

6. Given  $\triangle BCD \cong \triangle FHG$ , solve for  $x$ . Then, give the length of the sides for each triangle.



7. Using the above triangles, we are given that  $m\angle D = (4y + 12)^\circ$ ,  $m\angle C = (5y - 8)^\circ$ , and  $m\angle F = (6y - 34)^\circ$ . Solve for  $y$  and use  $y$  to find all the angle measures.