Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_  
Geometry // Mr. Burke

Chapter 5: Relationships in Triangles

Extra Practice

1. In a triangle, the intersection of the *perpendicular bisectors* is called the   
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sketch it:

2. In a triangle, the intersection of the *altitudes* is called the   
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sketch it:

3. In a triangle, the intersection of the *angle bisectors* is called the   
  
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Sketch it:

4. In a triangle, the intersection of the *medians* is called the   
  
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Sketch it:

5. Define midsegment:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. Use the information in the diagram to determine the length of the bridge. *The diagram is not to scale.*



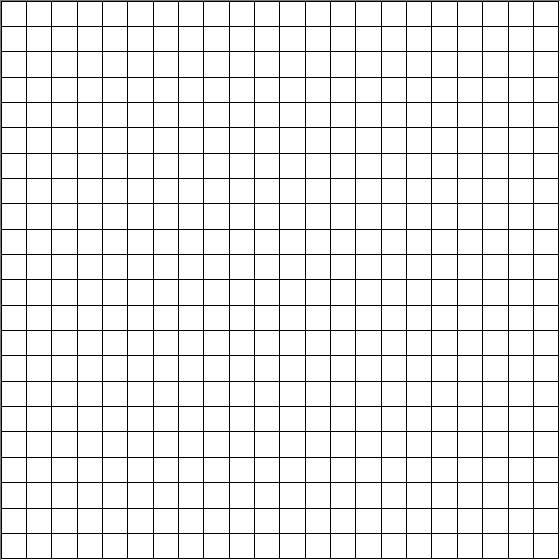
7. Find the value of x.



8. Find the value of *y*. *The diagram is not to scale*.



9. Find the center of the circle that you can circumscribe about  with *O*(0, 0),   
*P*(0, 6), and *S*(4, 0).



10. Find the length of , given that  is a median of the triangle and *AC* = 56*.*

**

11. Identify 3 sets of parallel segments in the diagram below.



12. List the sides in order from shortest to longest. *The diagram is not to scale.*

*J*



*K*





*L*

13. Could the lengths 3, 9, 12 represent the sides of a triangle? Why or why not?

14. If two sides of a triangle measure 10 and 23, write an inequality to represent the possible lengths for the third side.

15. Find .

3*x* - 12

2*x* + 8

5*x* - 4

*D*

*C*

*B*

*A*