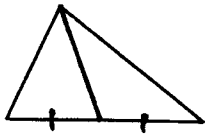
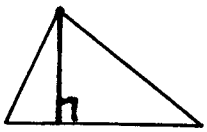
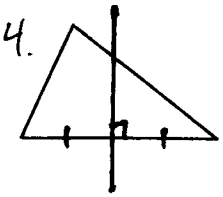
Review Problems
(Chapter 5)

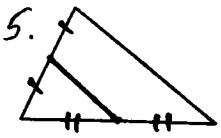
Name the following segments:

1. 

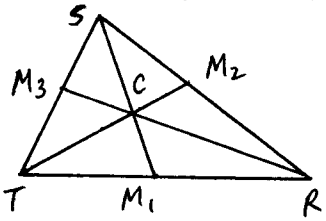
2. 

3. 

4. 

5. 

Medians of ΔSTR are drawn:

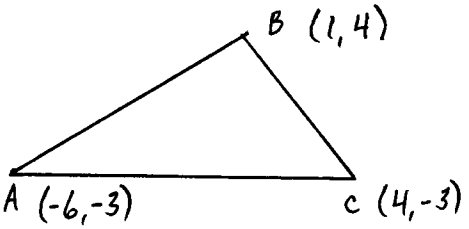


6. If $SM_1 = 12$ then $SC =$ _____ and $CM_1 =$ _____
7. If $TC = 10$ then $CM_2 =$ _____
8. If $RC = y + 6$ and $CM_3 = y + 2$ then $y =$ _____

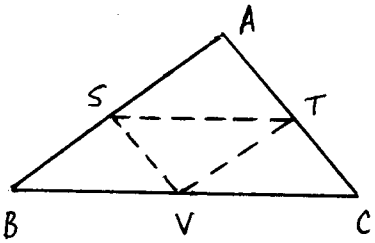
Match the following:

____ 9. Angle Bisectors	a. Circumcenter
____ 10. Medians	b. Centroid
____ 11. Perpendicular Bisectors	c. Orthocenter
____ 12. Altitudes	d. Incenter

13. Find the equation (in standard form) of the line which contains the median from vertex B:

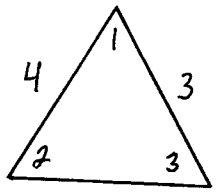


$\overline{ST}$, $\overline{VT}$ and $\overline{SV}$ are midsegments of ΔABC:



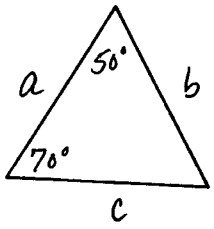
14. If $ST = 10$ then $BC =$ _____
15. If $AS = 4$ then $VT =$ _____
16. If $AC = 8x$ and $SV = 3x + 2$ then $x =$ _____

17. COMPLETE USING $m\angle 1$, $m\angle 2$ AND $m\angle 3$:



____ > ____ > ____

18. COMPLETE USING a, b AND c:



____ < ____ < ____

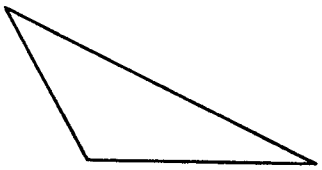
19. TWO SIDES OF A TRIANGLE ARE 10 AND 15. THE THIRD SIDE MUST BE GREATER THAN _____ BUT LESS THAN _____

20. WRITE AN INDIRECT PROOF:

Given $n^2 + 6 = 32$

Prove $n \neq 5$

21. CONSTRUCT THE 9-POINT CIRCLE:



ANSWERS

1. Angle Bisector
2. Median
3. Altitude
4. Perpendicular Bisector
5. Midsegment
6. 8, 4
7. 5
8. 2
9. d
10. b
11. a
12. c
13. $7x - 2y = -1$
14. 20
15. 4
16. 2
17. $m\angle 1$, $m\angle 3$, $m\angle 2$
18. c, a, b
19. 5, 25
20. Assume temporarily that $n = 5$. Then $n^2 + 6 = 25 + 6 = 31$. But this contradicts the fact that $n^2 + 6 = 32$ so the assumption was false and $n \neq 5$.
21.