1. Draw the perpendicular bisector of $\overline{A B}$. Make sure you include any important tick marks or angle measures.

2. Draw the angle bisector of $<\mathrm{ABC}$. Make sure you include any important tick marks or angle measures.

3. Draw the midsegment that is parallel to $\overline{A B}$. Make sure to include any important tick marks or angle measures.

4. Draw the median $\overline{C L}$. (You will have to label point L on the triangle). Make sure to include any important tick marks or angle measures.

5. Draw the $\overline{C L}$. (You will have to label point L on the triangle). Make sure to include any important tick marks or angle measures.
6. Match each word with its point of intersection.

| Altitude | Centroid |
| :--- | :--- |
| Angle Bisector | Circumcenter |
| Median | Incenter |
| Perpendicular Bisector | Orthocenter |

7. Match the line with each vocabulary word.

Altitude
Angle Bisector
Perpendicular Bisector
Median

8. In $\triangle \mathrm{DEF}, \overline{D F}, \overline{E O}, \overline{F M}$ are medians.


If $\mathrm{DE}=44$, Then $\mathrm{DM}=$ $\qquad$
If $\mathrm{PD}=12$, Then $\mathrm{DN}=$ $\qquad$
9. In $\triangle \mathrm{DEF}, \overline{D F}, \overline{E O}, \overline{F M}$ are medians.


If $\mathrm{DO}=8$, Then $\mathrm{FD}=$ $\qquad$
If $\mathrm{OE}=36$, Then $\mathrm{EP}=$ $\qquad$ and OP
10. In $\triangle \mathrm{DEF}, \overline{D F}, \overline{E O}, \overline{F M}$ are medians.


If $\mathrm{MP}=12$ then $\mathrm{PF}=$ $\qquad$
11. Name all three pairs of parallel segments

12.

Find $A C$

13.

## Find $C D$


14. Can a triangle have the following sides? Explanation required.
$7,5,4$
15. Can a triangle have the following sides? Explanation required.
$6,3,2$
16. Name the range of possible third side of the triangle if the two other sides are 6,10
17. Name the range of possible third side of the triangle if the other two sides are 14,11
18. List the angles of $\triangle A B C$ from least to greatest if $A B=10 B C=12$ and $A C=24$
19. List the angles of $\triangle \mathrm{DEF}$ from greatest to least if $\mathrm{DE}=3, \mathrm{EF}=4$ and $\mathrm{DF}=5$
20. List the sides from longest to shortest in $\triangle A B C$ if $<A=120<B=40$.
21. List the sides from shortest to longest in $\triangle \mathrm{DEF}$ if $<\mathrm{D}=50,<\mathrm{E}=75$.
22. Determine the values of the angles.

23. Find the value of $x$, then find FB, and FD.

24. Find $x$ and then find TW and $W Z$.


25 . Find the value of $x$.

26.

1. $\qquad$ Altitude
A. A segment connecting the midpoints of two sides of a triangle.
2. ___ Angle Bisector
B. Where three or more lines intersect.
3. $\qquad$ Concurrent
C. A line, segment, or ray that is perpendicular to the segment at its midpoint.
4. $\qquad$ Median
D. A segment whose endpoints are a vertex and the midpoint of the opposite side.
5. ___ Midsegment
E. A ray that divides an angle into two congruent angles.
6. ___ Perpendicular Bisector
7. $\qquad$ Point of concurrency
opposite side of a triangle.
G. When 3 or more lines intersect in one point.
8. Draw three triangles. (Acute, right and obtuse) Then draw an altitude for each. Make sure you include any important tick marks or angle measures.
