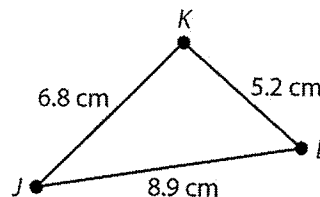


Keep in mind that this is simply to supplement the materials that you use to prepare for the exam. You need to always assess what areas and how much more time you need to devote to each topic. This packet alone probably will not be sufficient. You will need to re-do homework and classwork problems. You can also do the more difficult problems in your text book – these tend to be towards the back of the “Homework and Practice” sections.

1. $\triangle JKL$ is shown. Arrange the angle measures from least to greatest.

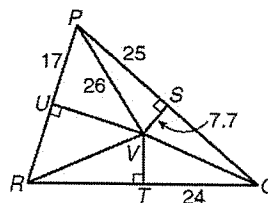


2. $\triangle WXY$ has $m\angle W = 40^\circ$, $m\angle X = 60^\circ$, and $m\angle Y = 80^\circ$. Which side has the least measure?

3. A triangle has sides 12 cm and 22 cm. What are the possible side lengths of the third side?

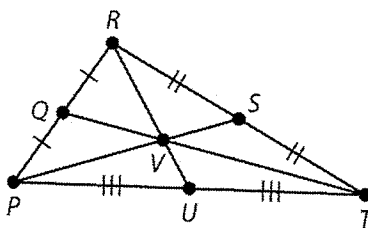
Use the figure for the following problems. \overline{SV} , \overline{TV} , and \overline{UV} are perpendicular bisectors of the sides of $\triangle PQR$. Find each length.

- 4. RV _____
- 5. TR _____
- 6. VT _____
- 7. UV _____

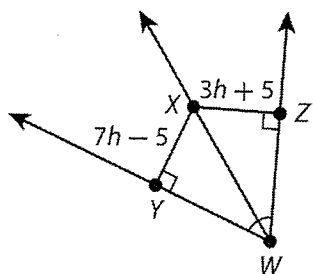


In $\triangle PRT$ $PS = 12.0$ cm, $UV = 2.7$ cm, and $ST = 7.3$ cm.

- 8. What is the measure of \overline{RV} ?
- 9. What is the measure of \overline{RS} ?
- 10. What is the measure of \overline{PV} ?



11. For what value of h will \overline{WX} be an angle bisector?



12. Triangle ABC has coordinates A(4, -5), B(-2, 7) and C(-6, 11). **Find the coordinate of the circumcenter.**



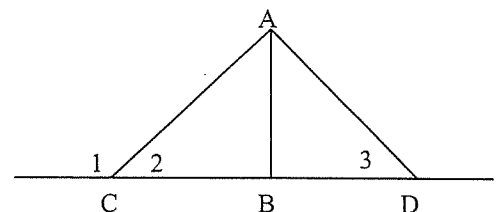
13. Triangle ABC has coordinates A(4, -5), B(-2, 7) and C(-6, 11). **Find the coordinate of the centroid.**

14. Triangle ABC has coordinates A(4, -5), B(-2, 7) and C(-6, 11). **Find the coordinate of the orthocenter.**



15. M and N are midpoints of sides \overline{AC} and \overline{BC} . If $AM = 2x + 2$, $MC = y + 3$, $MN = 3x$, and $AB = 4y - 2$, find the lengths of \overline{MN} and \overline{AB} .

16. Find the $m\angle 2$ if \overline{AB} is the perpendicular bisector of \overline{CD} . $m\angle 1 = 2x + 40$ and $m\angle 3 = x + 20$.



17. Construct an Isosceles triangle. Justify how you know your construction is an isosceles triangle.

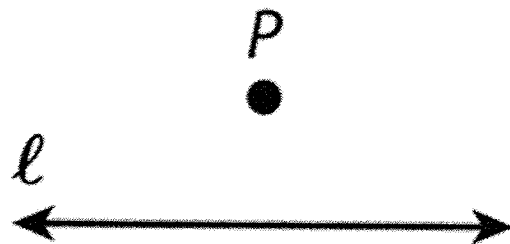
Justification:

18. FILL IN THIS TABLE:

	Circumcenter	Incenter	Centroid	Orthocenter
Definition	The point of concurrency of the _____			
Special properties	Equidistant from the _____			
Location (Inside, Outside, On)	Inside, Outside and On.			

19. Construct a line perpendicular to a line l that passes through some point P that is not on l . Write down the steps of your construction and justify it.

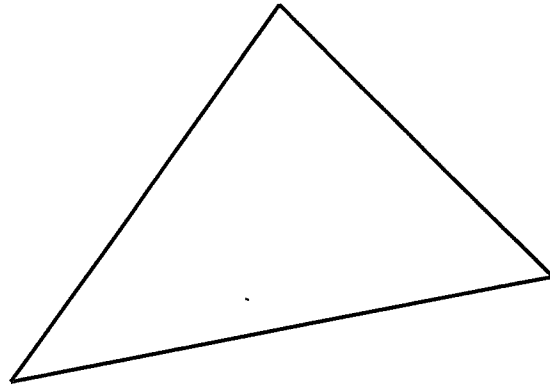
Construction:



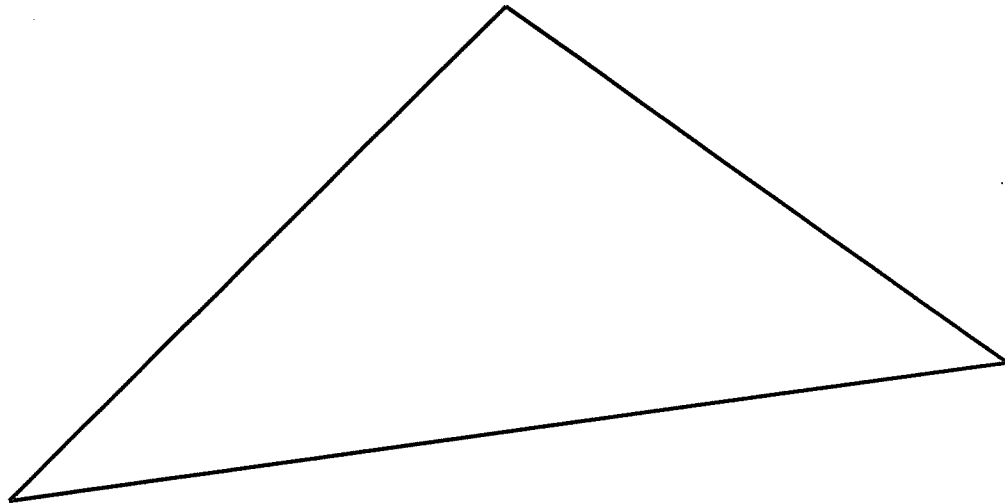
Justification:

20. Study the following theorem proofs: Circumcenter Theorem and the Incenter Theorem.

21. Construct the circumcircle of the following triangle.



22. Construct the incenter of the following triangle.



Go over all notes, classwork & homework problems that were difficult or confusing for you. Study the Lesson Performance Task in the "8.3 Medians and Altitudes of Triangles" packet (bicycle problem).