Directions: Complete this packet by Monday May 2nd 2016 in addition to this you must by a compass (To make circles). This is due Monday May 2nd 2016. If necessary do the work on a separate sheet of loose-leaf.

1) What is the midpoint of *CD* if it’s endpoints are C(-8, -7) and D(2, 3)?

2) What is the distance between the points (-5, 4) and (5, 9)? Express you answer in simplest radical form.

3) If two sides of a triangle are 8 and 4, is it possible for the third side to be 18? Explain.

 4) In the diagram below, transversal  intersects  and  at *V* and *W*, respectively.



If  and , for which value of *x* is ?

 5) If the vertices of  are , , and , can we classify  as scalene? Explain.

 6) In , , , and . List the angles of  in order from least to greatest.

 7) In the diagram below,  and  at *R*.



If , find .

 8) In the diagram below of  with side  extended through *D*,  and . Find the measure of Angle B. Which side of  is the longest side? Justify your answer.

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 9) The angles of triangle *ABC* are in the ratio of . What is the measure of the *smallest* angle?

 10) Can the following set of lengths represent the sides of a right triangle? Why or why not?

 {16, 63, 65}

 11)

 

 

 12) What is an equation that represents the line that is perpendicular to  and passes through the point ?

13) In the diagram below of *,* *H* is a point on , , , and . Determine whether  is an isosceles triangle and justify your answer.



14)Jim is experimenting with a new drawing program on his computer. He created quadrilateral *TEAM* with coordinates , , , and . Jim believes that he has created a rhombus but not a square. Prove that Jim is correct. [The use of the grid is optional.]

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15)  

16)



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17)



18)

