Name: _____

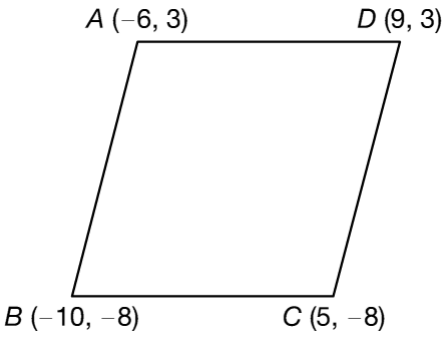
Past due on: _____ Period: _____

3.3.D1 – Area & Perimeter of Parallelograms

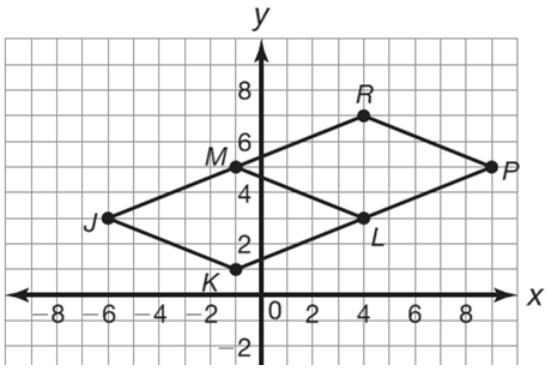
Show all work on a separate sheet of paper.

1. Four points and their coordinates are given. Use the slope formula to show that quadrilateral *ABCD* is a parallelogram.

   Find m_{AB}, m_{BC}, m_{CD} & m_{AD}.

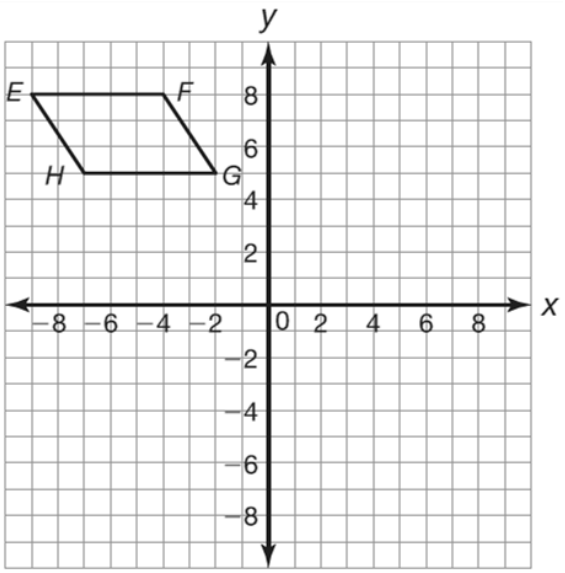


2. Parallelograms $JKLM$ & $JKPR$ are given. Without calculating the areas, determine whether or not the area of parallelogram $JKPR$ is twice that of the area of $JKLM$. Explain how you determined your answer.

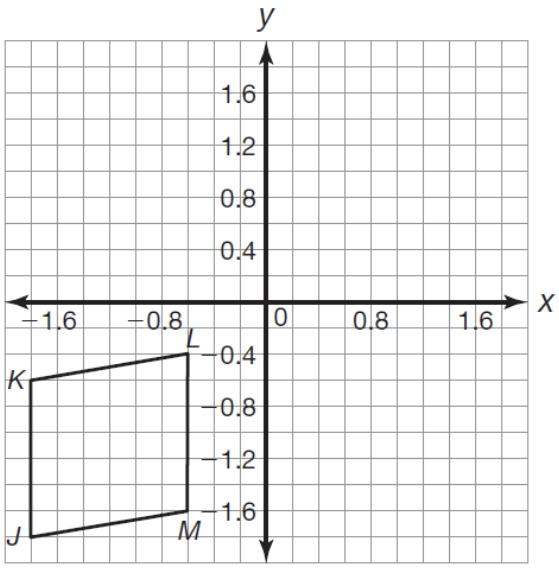


Translate the parallelogram such that one vertex of the image is located at the origin and label the vertices of the translated image. Determine its <u>perimeter</u>. Round your answer to the nearest hundredth, if necessary.

3. Parallelogram *EFGH*

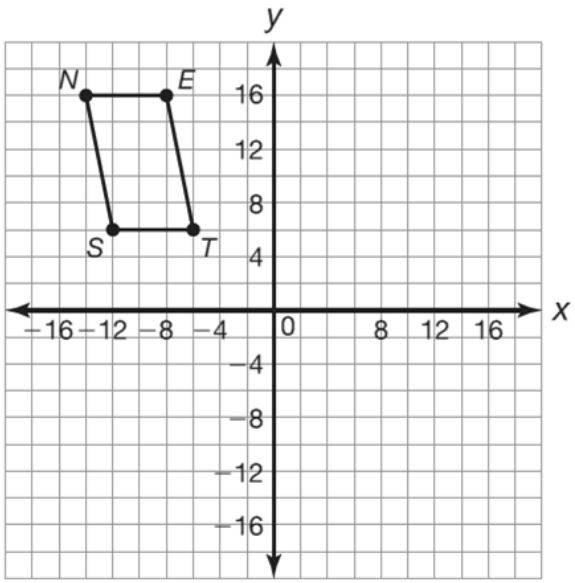


4. Parallelogram *JKLM*

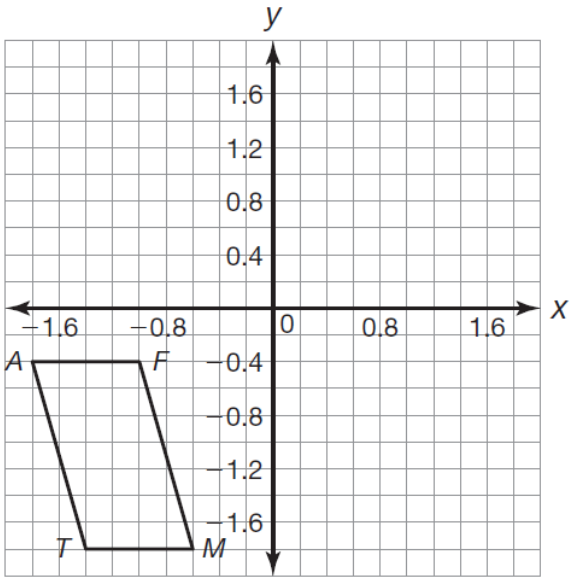


Translate the parallelogram such that one vertex of the image is located at the origin and label the vertices of the translated image. Determine its area. Round your answer to the nearest hundredth, if necessary.

5. Parallelogram *NETS*

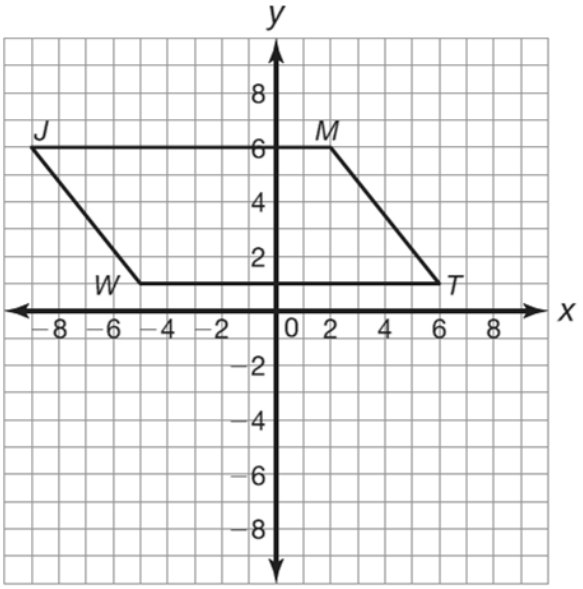


6. Parallelogram *AFMT*



7. Double the area of parallelogram $JMTW$ by manipulating the height. Label the image $JMT'W'$.

   Calculate the area of the pre-image and the area of the image to verify your solution.



8. Double the area of parallelogram $BASK$ by manipulating the base. Label the image $BA'S'K$.

   Calculate the area of the pre-image and the area of the image to verify your solution.