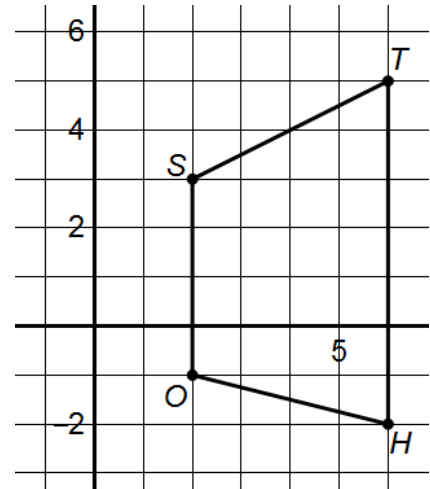


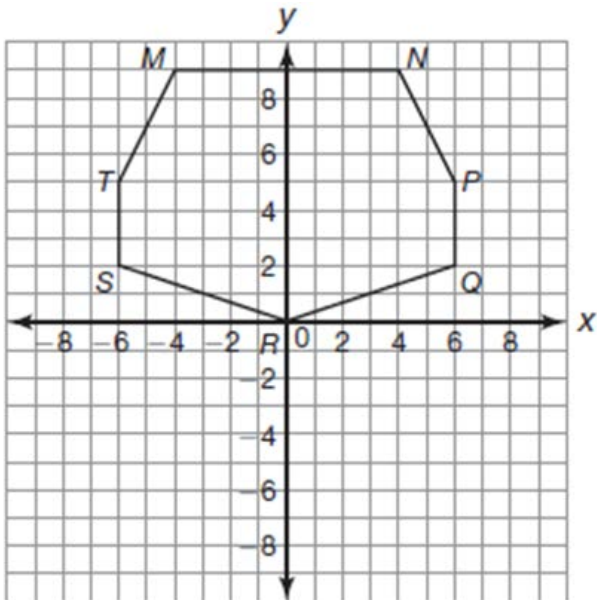
1a. Which two sides of trapezoid HOST are the bases?

b. Draw in the altitude (or height) of trapezoid HOST using point S as one of its endpoints. *Choose a label for the other endpoint.*

c. Find the area of trapezoid HOST.



2a. Find the area of figure MNPQRST using the **Composite Method**.



b. (**Mixed Review**) Write the equation for each of the following lines in the figure:

$\overline{MN}$

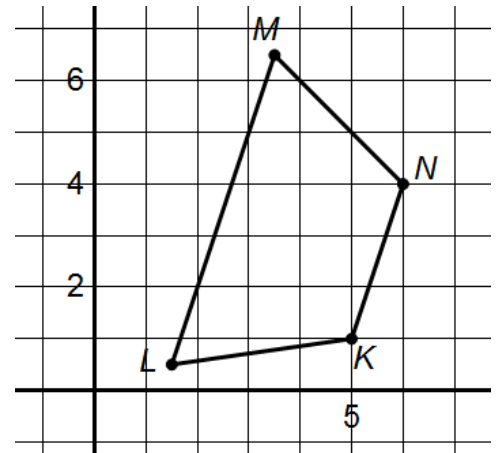
$\overline{PQ}$

$\overline{RQ}$

$\overline{NP}$

3a. Prove that quadrilateral MNKL is a trapezoid by showing

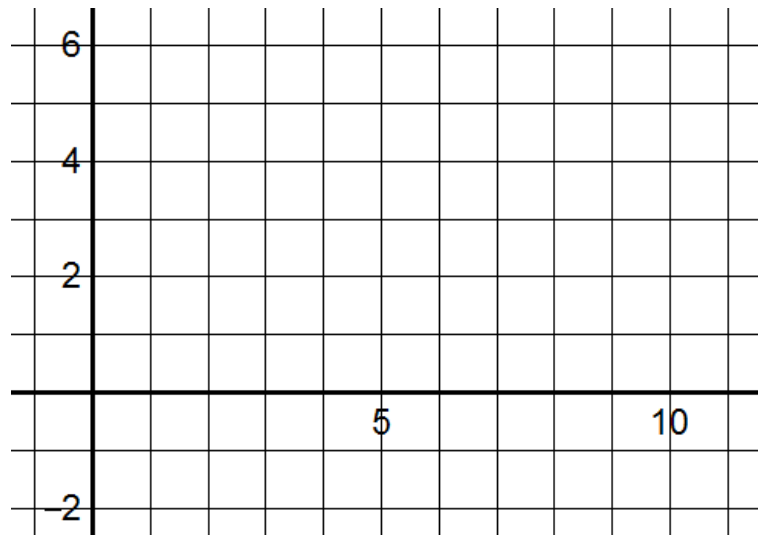
$$\overline{ML} \parallel \overline{NK}.$$



b. If the non-parallel sides of a trapezoid are **congruent**, then the trapezoid is called “*Isosceles*”. Prove that Trapezoid MNKL is Isosceles.

4a. On the grid, draw Trapezoid ABCD, such that bases  $\overline{AB}$  and  $\overline{CD}$  are congruent. (Remember to keep the bases parallel too!)

b. Are the “non-parallel” sides,  $\overline{BC}$  and  $\overline{AD}$ , of your trapezoid really non-parallel? Justify your answer by calculating their slopes.



c. Is Quadrilateral ABCD really a trapezoid? If not, what is the real name of the shape that you drew? Explain your reasoning.