Coordinate Geometry Unit Exam: Question 24

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The given image required to solve the problem is shown below.

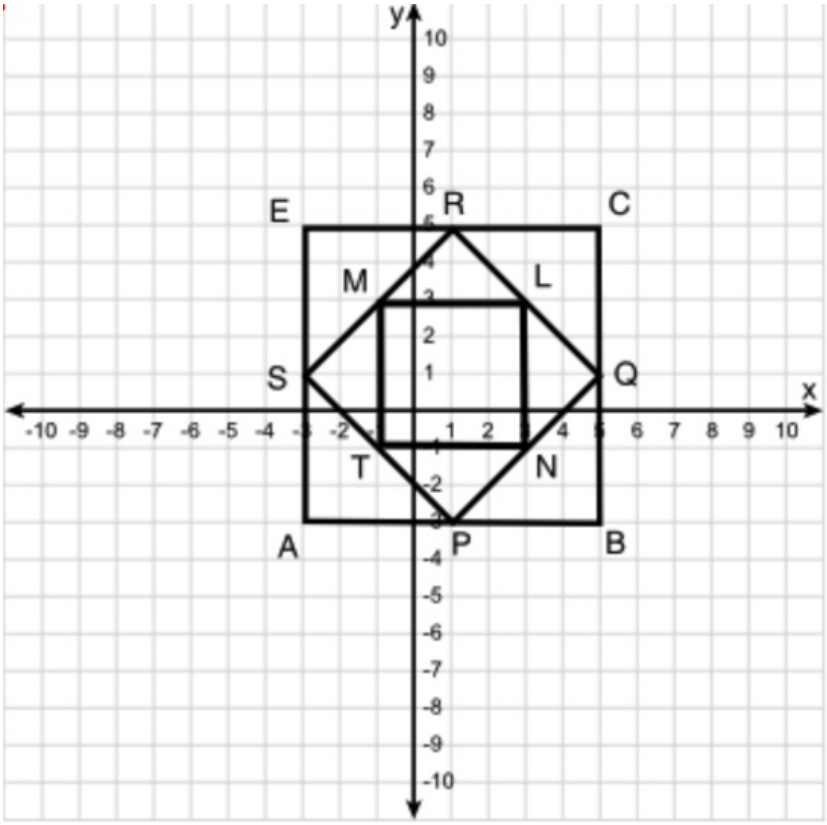

Figure 1: Graphic

The information given to us is the following:

- Points S, P, Q, and R are midpoints of ABCE
- T, N, L, and M are midpoints of PQRS

Since we can already see the coordinates of M and L, we can calculate the slope between them, and use of them as a point which passes through the line to find the final equation of the line.

$$M = (-1, 3) \tag{1}$$

$$L = (3, 3) \tag{2}$$

$$m = \frac{3-3}{3-(-1)} = 0 \tag{3}$$

Since the slope is 0, this means that the equation has to be a horizontal line and since y values are always 3 regardless of what the x value is, we can deduce that the equation of ML is:

$$y = 3 \tag{4}$$