GEOMETRY 9a Lesson B: Week Four Mr. Dinallo

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In order to answer these questions, you must review all three lessons: see Barron's pages 99 through 103

1. What is an equation of the line that passes through the point $(-2,5)$ and is perpendicular to the line whose equation is $y = 0.5X + 5$? *must show your work*

(1) $y = 2x+1$

(2) $y = -2x+1$

(3) $y = 2x+9$

(4) $y = -2x-9$

problem take from ny state regent archives

2. In a coordinate plane, how many points are both 5 units from the origin and 2 units from the *x*-axis?

explain your answer

(1) 1

(2) 2

(3) 3

(4) 4

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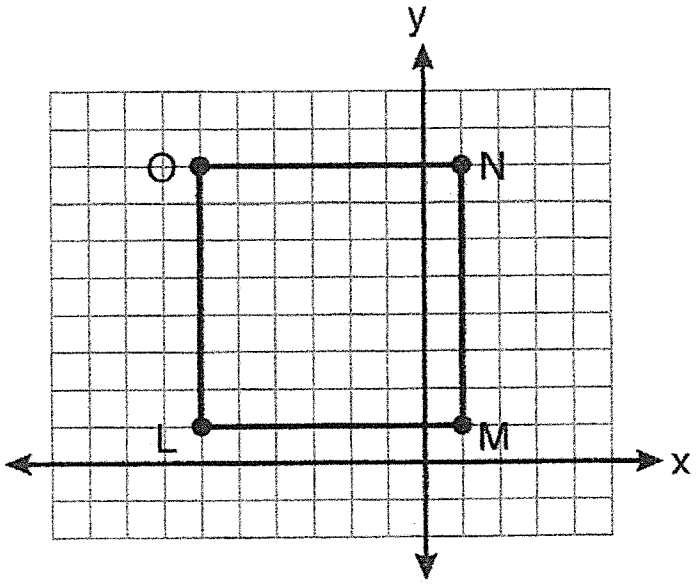
3. next problem you must show your work for credit:

Square *LMNO* is shown in the diagram below.



What are the coordinates of the midpoint of diagonal $\overline{LN}$?

(1) $\left(4\frac{1}{2}, -2\frac{1}{2}\right)$

(2) $\left(-3\frac{1}{2}, 3\frac{1}{2}\right)$

(3) $\left(-2\frac{1}{2}, 3\frac{1}{2}\right)$

(4) $\left(-2\frac{1}{2}, 4\frac{1}{2}\right)$

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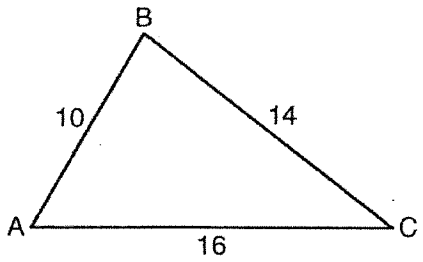
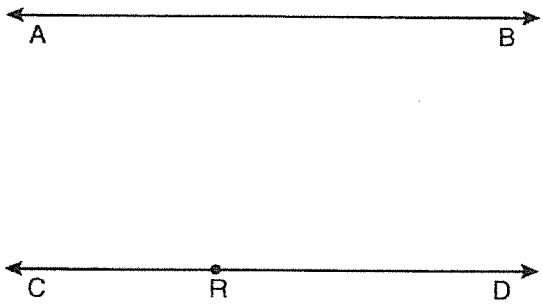
4.next problem you must show your work for credit:

In the diagram of $\triangle ABC$ below, $AB = 10$, $BC = 14$, and $AC = 16$. Find the perimeter of the triangle formed by connecting the midpoints of the sides of $\triangle ABC$.



Two lines, $\overleftrightarrow{AB}$ and $\overleftrightarrow{CRD}$, are parallel and 10 inches apart. Sketch the locus of all points that are equidistant from $\overleftrightarrow{AB}$ and $\overleftrightarrow{CRD}$ and 7 inches from point R. Label with an **X** each point that satisfies both conditions.



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