

TASK

4

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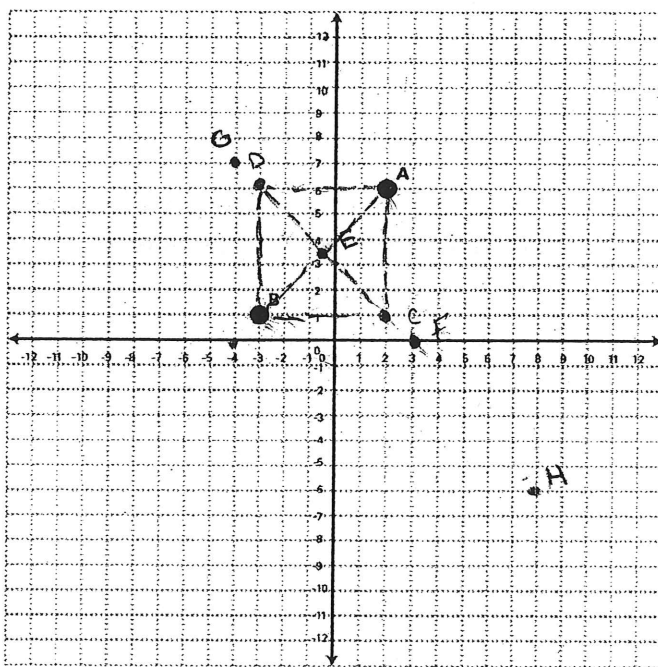
Building a New Playground

The City Planning Commission is considering building a new playground. They would like the playground to be equidistant from the two elementary schools, represented by points A and B in the coordinate grid that is shown.

• you can also use the midpoint formula $(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2})$ to find point E.

• A square is equal distance between the points.

• Count spaces over to find a point that is the same distance from B as it is to A.



• Midpoint Bisector is $(-0.5, 3.5)$

PART A

- Determine at least three possible locations for the park that are equidistant from points A and B. Explain how you know that all three possible locations are equidistant from the elementary schools.

$C(2, 1)$ $D(-3, 1)$ $E(-0.5, 3.5)$ you count over from a point and find the spot where A and B meet at an equal distance (spaces over)

- Make a conjecture about the location of all points that are equidistant from A and B. Prove this conjecture.

You can extend the points D and C out one and the points A and B will be both 6 units apart. You just have to count the points over and see if they are equal.