



Geometry Transformations Art Project



Directions for the Teacher:

Materials Needed:

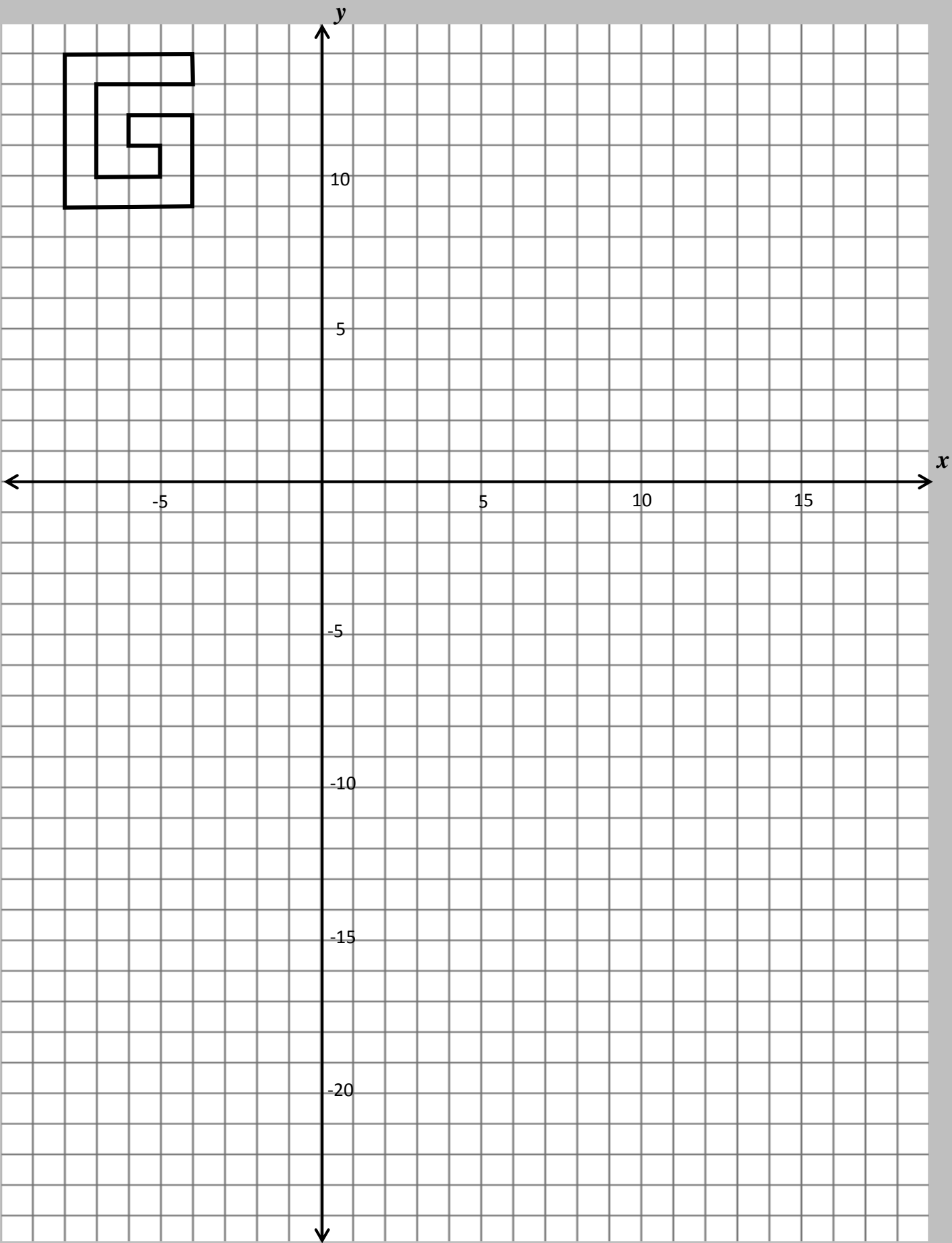
- Enough copies of the letters G, E, M, and R to give each student just one of the letters.
- Enough copies of the letters O, T, and Y to give to students who struggle or early finishers.
- Boxes of crayons, at least one per group.
- Black sharpie pens or vis-à-vis pens if you want students to trace the art for display.

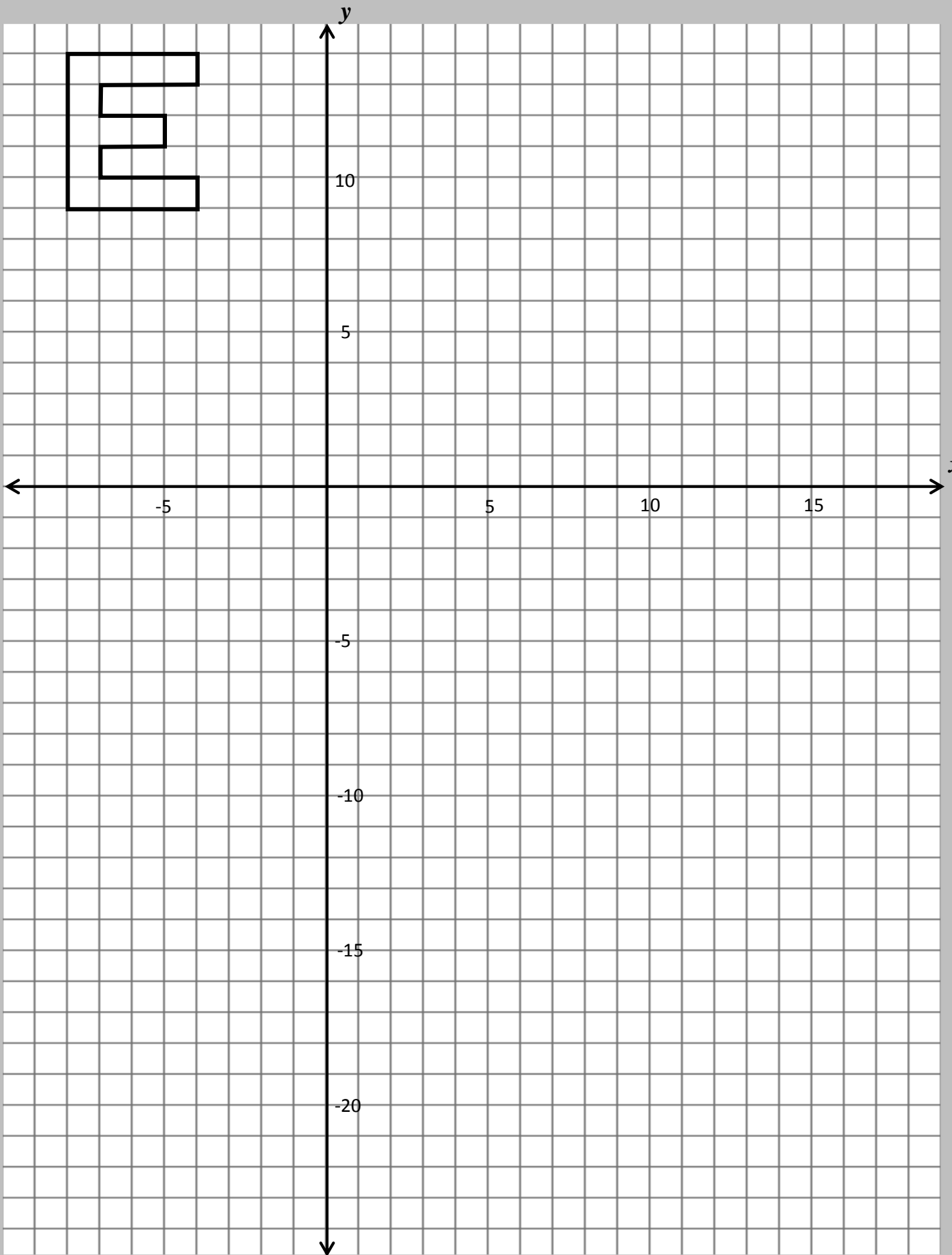
This activity is meant to follow and review all the transformations. Students will perform translations, rotations, reflections, and dilations on a single letter. Students will all perform the same transformations on the letters, so it works best to have students seated in groups of four.

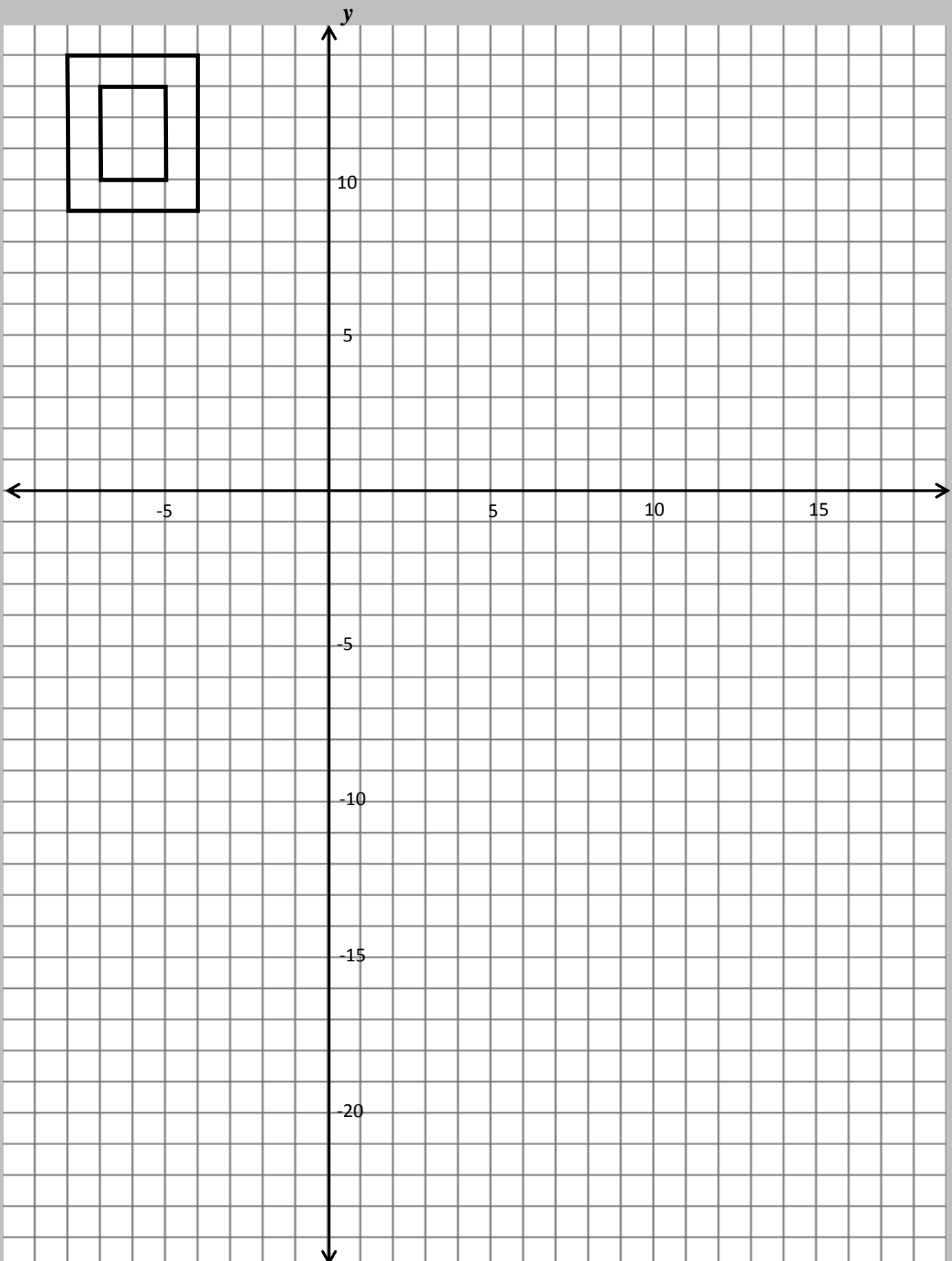
Give each group of four the letters: G, E, M, and R. Allow each student in the group to choose which letter they will work on. Give each student a copy of the directions (they are printed two to a page, so each student only needs a half sheet). Allow students to work together to understand the directions and perform each transformation on their own paper. Students should be able to finish the majority of the work in one period. (Note: The G is the most challenging letter)

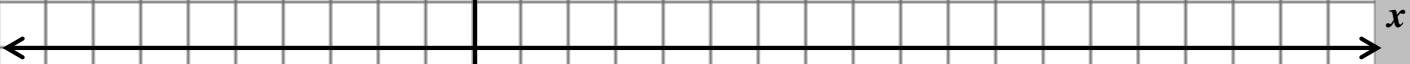
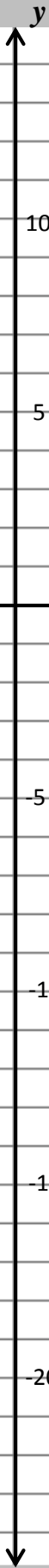
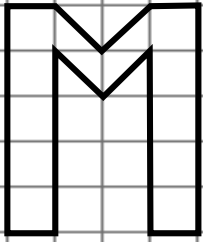
As students finish coloring, have them trace each image with a black marker if desired (they just look better this way if you hang them up.) Also, offer early finishers extra credit for completing a second letter: O, T, and Y. These are the easier letters and once students have completed the first letter, this second letter takes less than half the time for most students. You might even want to let students finish their second letter at home for extra credit. I have also included a copy of a “blank” for students who want to do a different letter, such as the first letter of their name, or the letters of your name for extra credit.

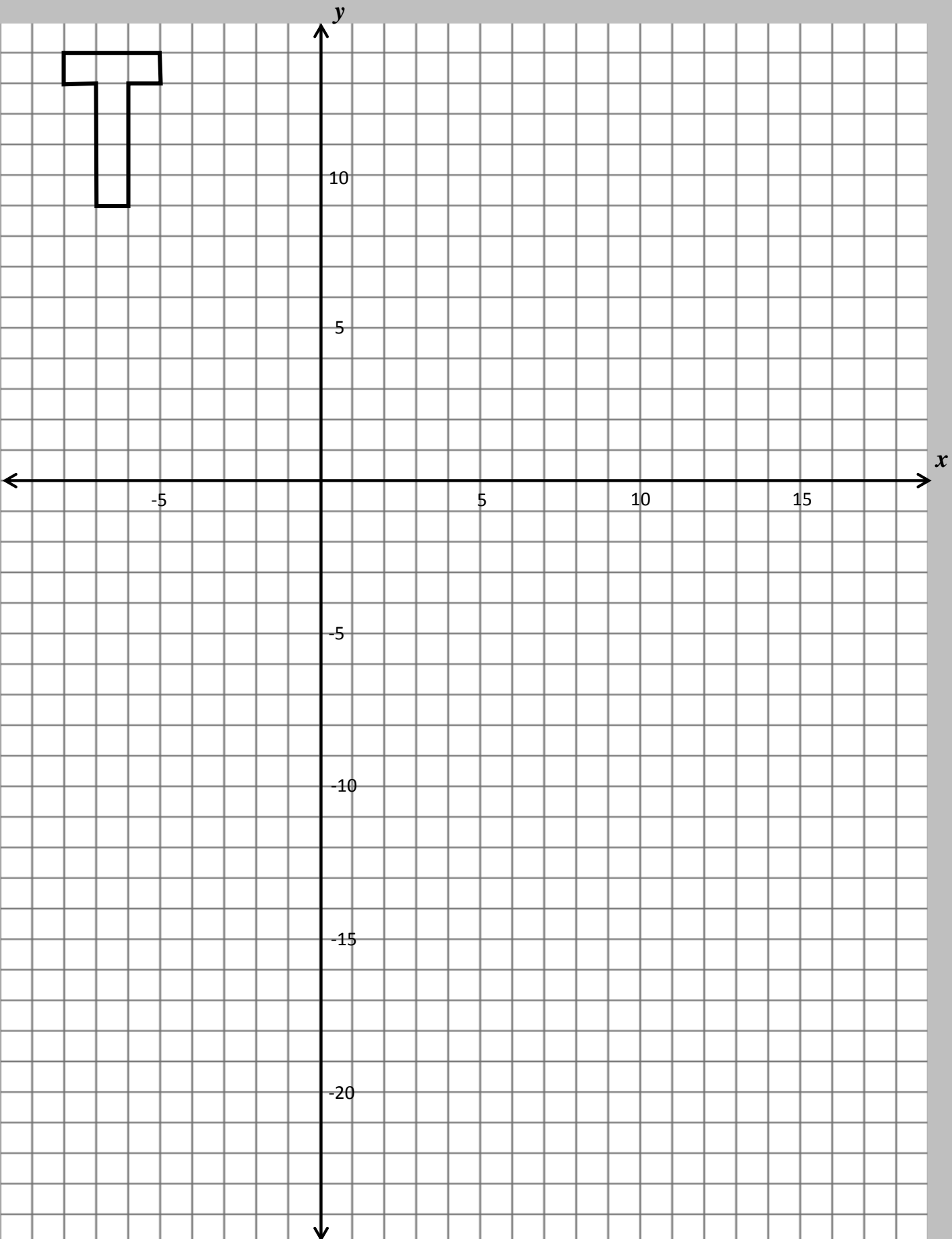
Hang the best of the letters (or all of them) up to spell the word “Geometry” on the wall.

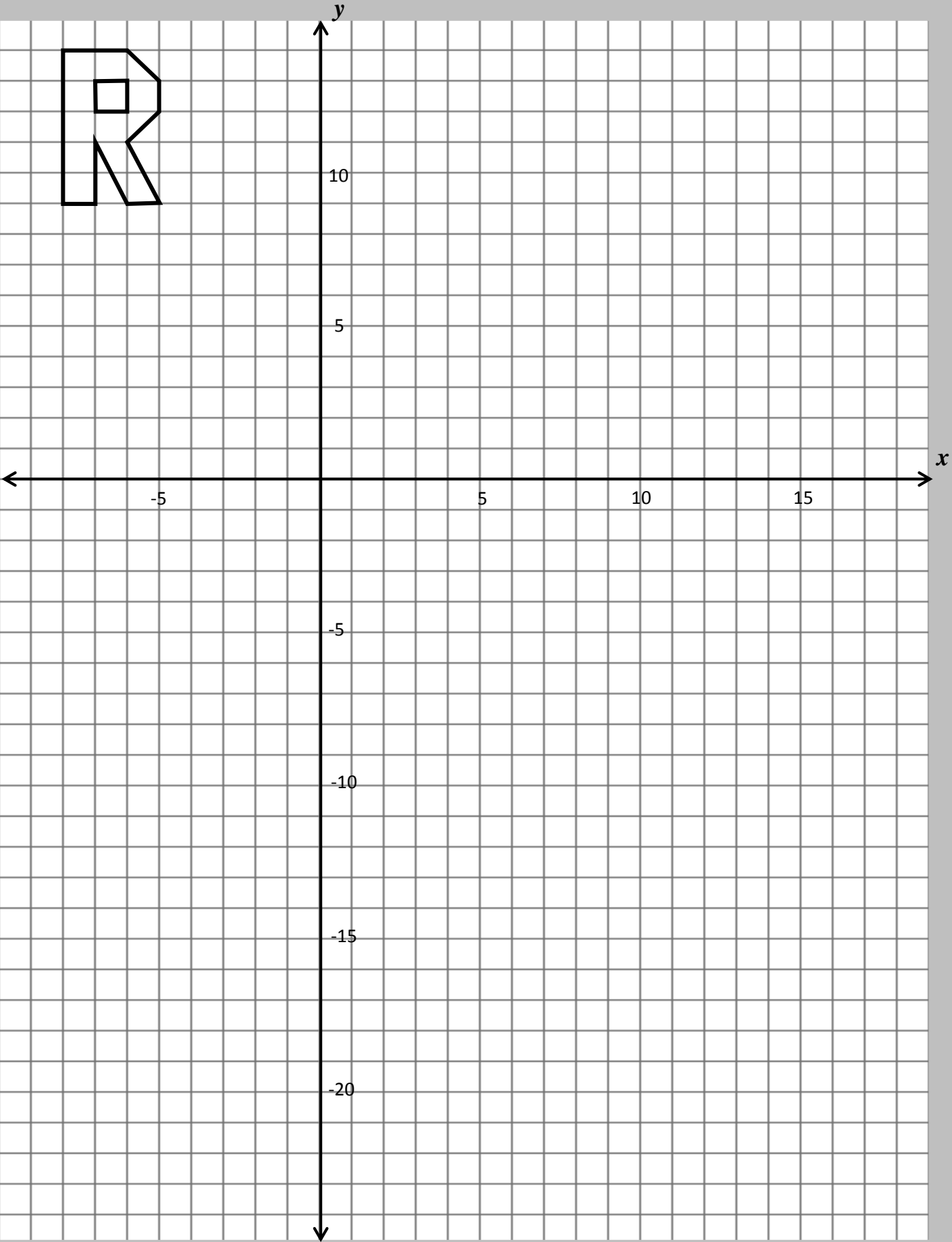
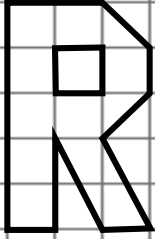


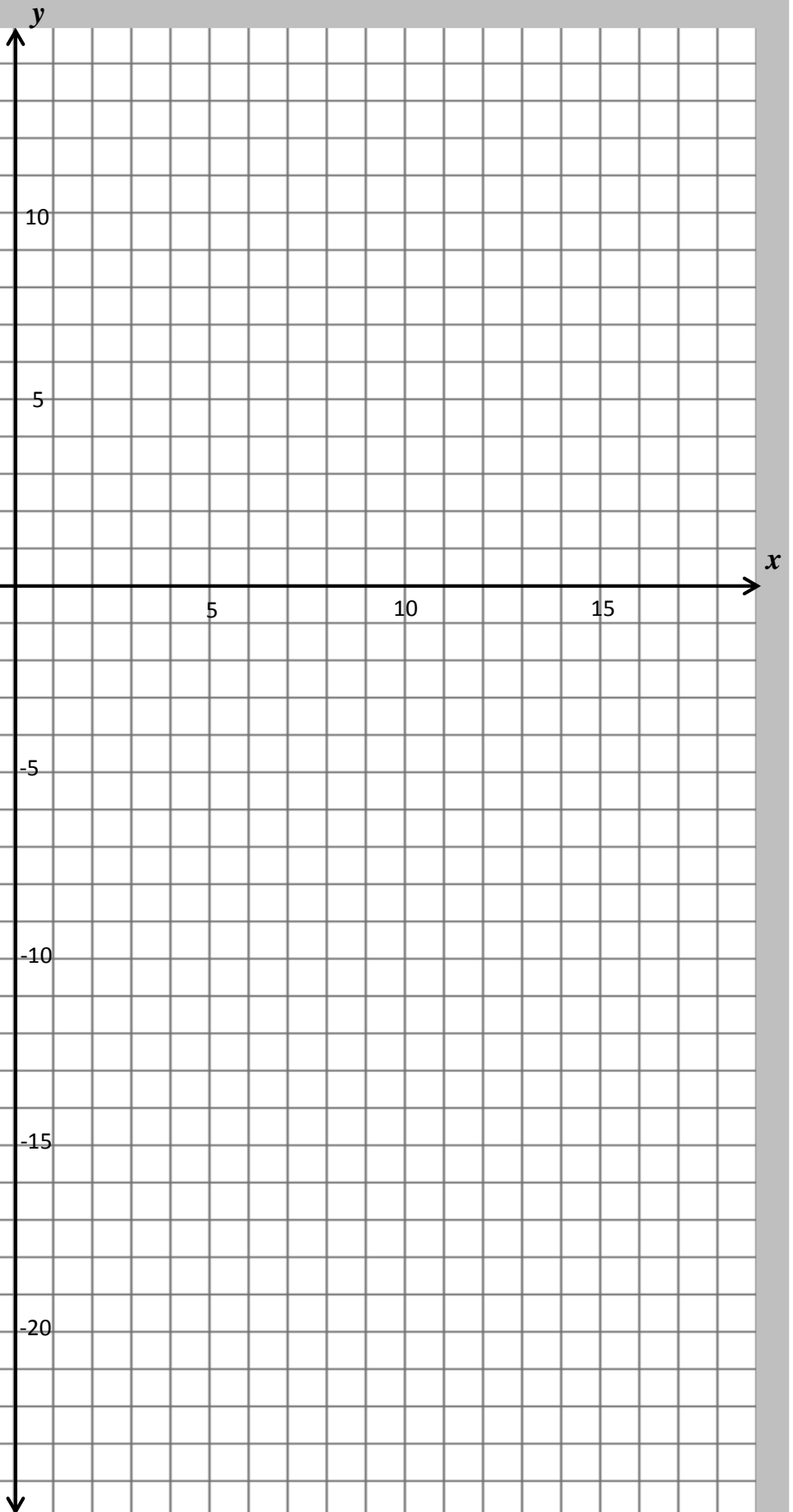
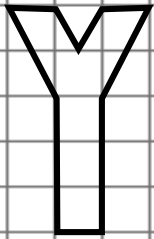












Directions:

1) Follow the composition of transformations for your letter:

- a. Reflect in the line: $y = 8$
- b. Translate: $(x, y) \rightarrow (x + 13, y + 4)$
- c. Reflect in the line: $y = -x + 3$
- d. Rotate: 90°
- e. Dilate from the origin: $k = 3$

2) Color each image a different color.

3) Color each quadrant a different color

(not the same color as the image or images of the letter in it.)

Directions:

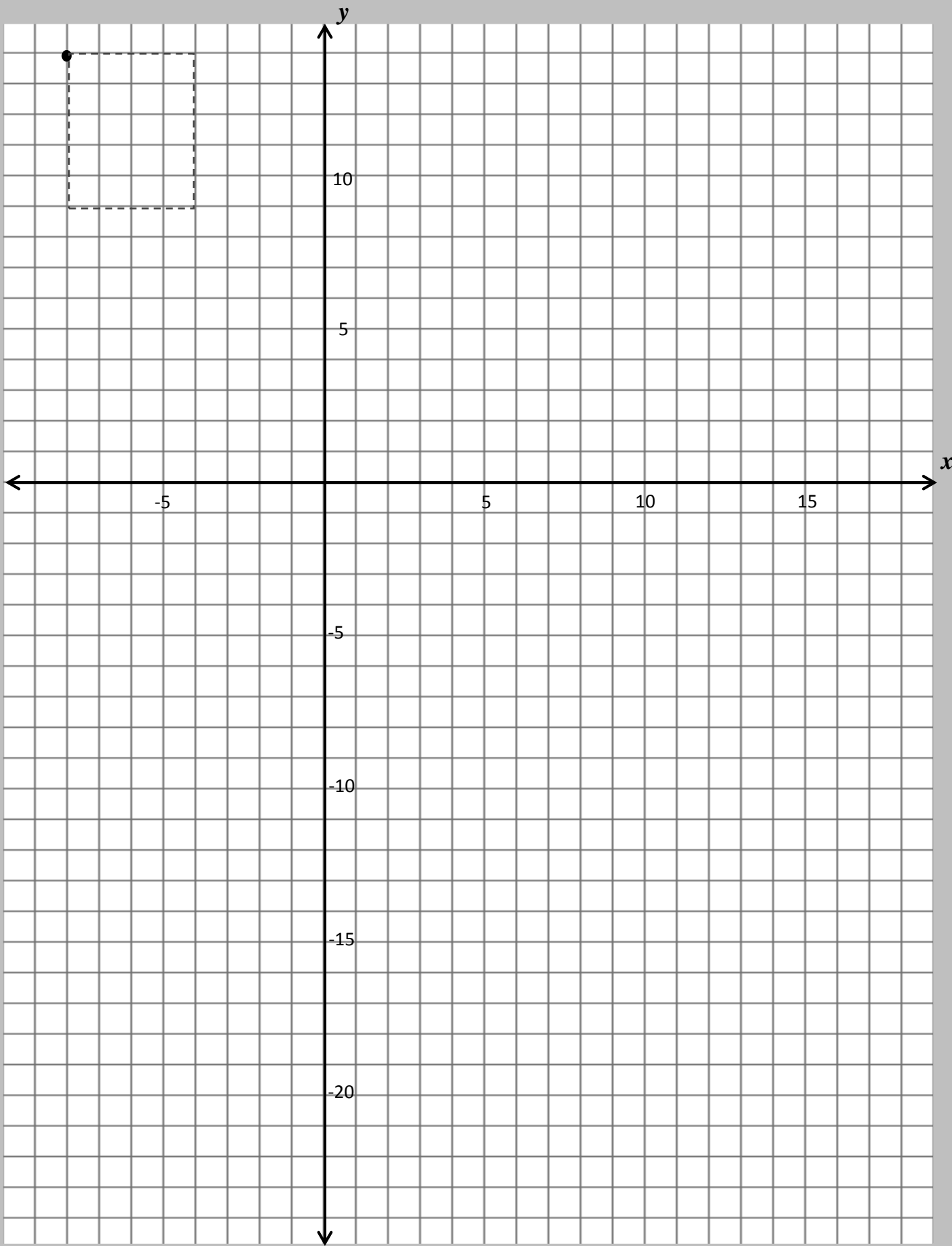
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