

Name _____

Transformation Study Guide

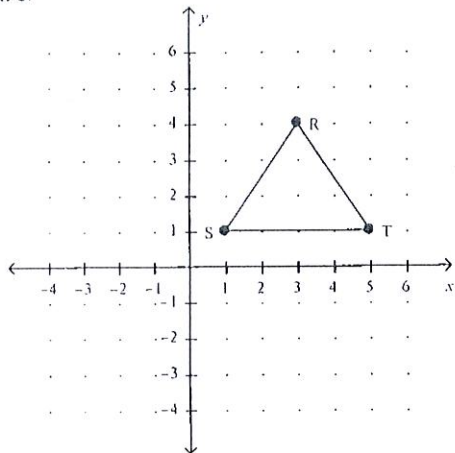
Dilation Homework

Date _____

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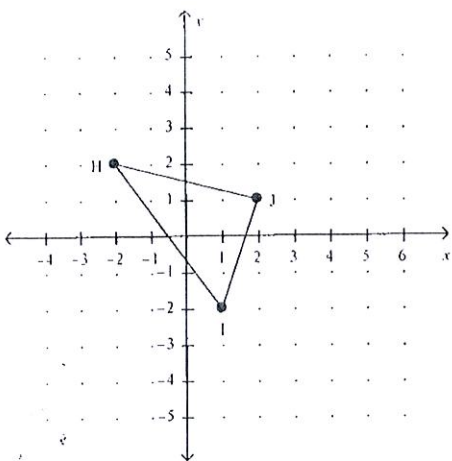
Draw the image and label with letters. Then, identify the letter of the choice that best completes the statement or answers the question.

___ 1. Translate triangle RST left 3 units and down 2 units. List the coordinates of the vertices of the new figure.



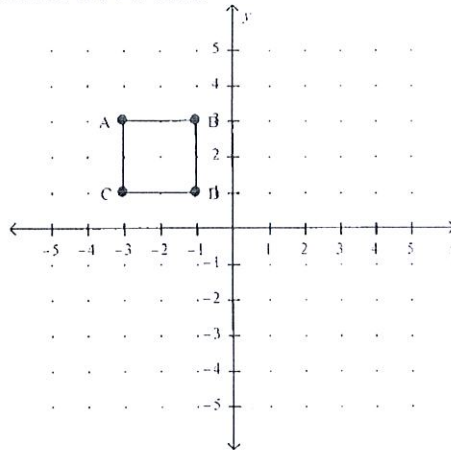
- a. $R'(6, 6), S'(4, 3), T'(8, 3)$ c. $R'(3, 2), S'(1, -1), T'(5, -1)$
 b. $R'(0, 4), S'(-2, 1), T'(2, 1)$ d. $R'(0, 2), S'(-2, -1), T'(2, -1)$

___ 2. Translate HIJ right 1 unit and up 2 units. List the coordinates of the vertices of the new figure.



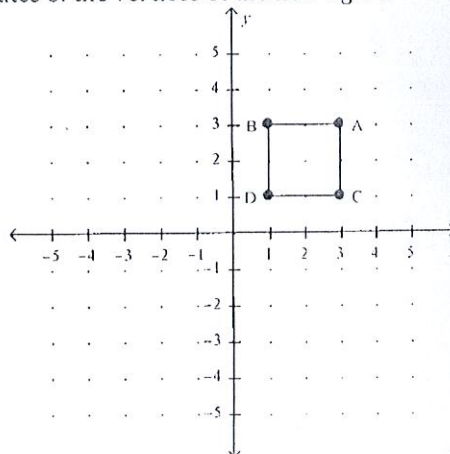
- a. $H'(-1, 2), I'(2, -2), J'(3, 1)$ c. $H'(-2, 4), I'(1, 0), J'(2, 3)$
 b. $H'(-1, 4), I'(2, 0), J'(3, 3)$ d. $H'(-3, 0), I'(0, -4), J'(1, -1)$

___ 3. The plan for a room is drawn on a grid. It is then decided that the square table should be moved to the right 2 units and down 2 units. List the new coordinates of the vertices.



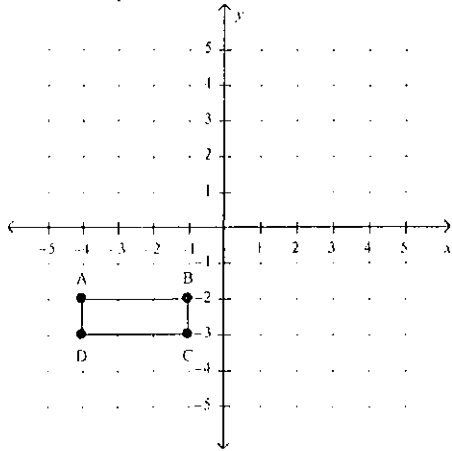
- a. $A'(-1, 1), B'(1, 1), D'(1, -1), C'(-1, -1)$
 b. $A'(-5, 5), B'(-3, 5), D'(-3, 3), C'(-5, 3)$
 c. $A'(-3, 1), B'(-1, 1), D'(-1, -1), C'(-3, -1)$
 d. $A'(-1, 3), B'(1, 3), D'(1, 1), C'(-1, 1)$

___ 4. Reflect BACD across the x-axis. List the coordinates of the vertices of the new figure.



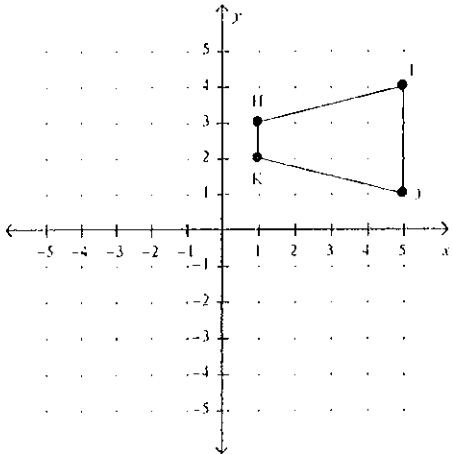
- a. $B'(1, 3), A'(3, 3), C'(3, 1), D'(1, 1)$
 b. $B'(1, -3), A'(3, -3), C'(3, -1), D'(1, -1)$
 c. $B'(-1, -3), A'(-3, -3), C'(-3, -1), D'(-1, -1)$
 d. $B'(-1, 3), A'(-3, 3), C'(-3, 1), D'(-1, 1)$

5. A bedroom plan is being designed on the grid below. The designer decides to reflect the placement of the bed, which is represented by rectangle ABCD, across the x-axis. What will be the coordinates of the vertices of the bed in the new plan?



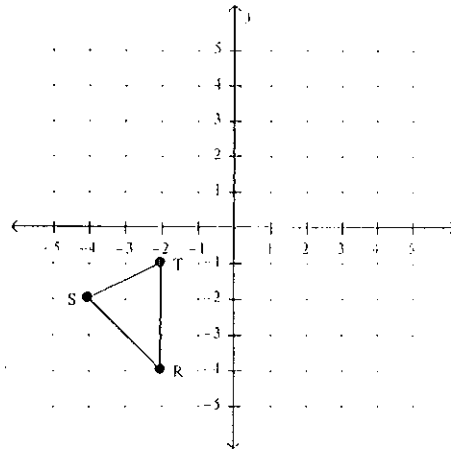
- a. $A'(-4, 2)$, $B'(-1, 2)$, $C'(-1, 3)$, $D'(-4, 3)$
- b. $A'(-4, -2)$, $B'(-1, -2)$, $C'(-1, -3)$, $D'(-4, -3)$
- c. $A'(4, 2)$, $B'(1, 2)$, $C'(1, 3)$, $D'(4, 3)$
- d. $A'(4, -2)$, $B'(1, -2)$, $C'(1, -3)$, $D'(4, -3)$

6. Members of a dance team begin in a trapezoid formation that is represented by trapezoid HIJK on the grid below. They move so that their new formation is a reflection across the y-axis. What are the new coordinates of the vertices after this reflection?



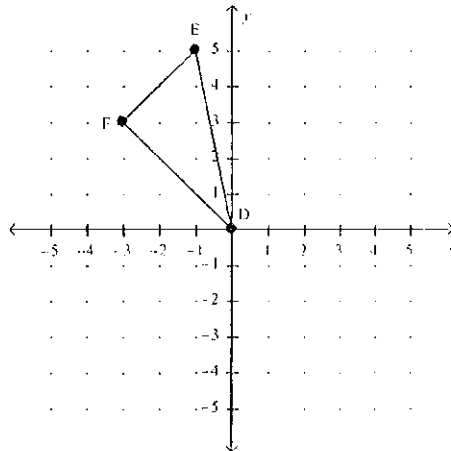
- a. $H'(-1, 3)$, $I'(-5, 4)$, $J'(-5, 1)$, $K'(-1, 2)$
- b. $H'(1, -3)$, $I'(5, -4)$, $J'(5, -1)$, $K'(1, -2)$
- c. $H'(1, 3)$, $I'(5, 4)$, $J'(5, 1)$, $K'(1, 2)$
- d. $H'(-1, -3)$, $I'(-5, -4)$, $J'(-5, -1)$, $K'(-1, -2)$

7. A flag is represented by triangle RST on the grid below. The flag is moved so that it is reflected across the x-axis. What are the coordinates of the vertices after the reflection?



- a. $R'(2, 4)$, $S'(4, 2)$, $T'(2, 1)$
- b. $R'(-2, 4)$, $S'(-4, 2)$, $T'(-2, 1)$
- c. $R'(-2, -4)$, $S'(-4, -2)$, $T'(-2, -1)$
- d. $R'(2, -4)$, $S'(4, -2)$, $T'(2, -1)$

8. Rotate DEF 180° clockwise about the origin. List the coordinates of the vertices of the new figure.



- a. $D'(0, 0)$, $E'(-1, -5)$, $F'(-3, -3)$
- b. $D'(0, 0)$, $E'(5, 1)$, $F'(3, 3)$
- c. $D'(0, 0)$, $E'(1, -5)$, $F'(3, -3)$
- d. $D'(3, -3)$, $E'(2, 2)$, $F'(0, 0)$

