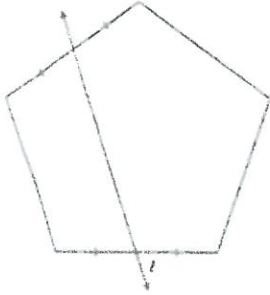


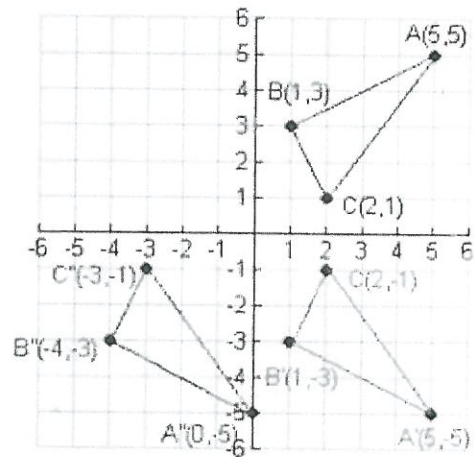
1. Which of the options below will carry this regular pentagon onto itself? *Circle All*



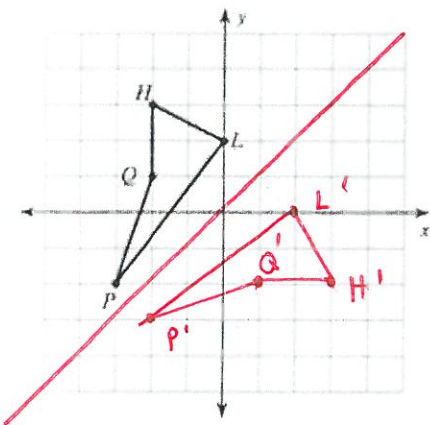
- a. rotation 90° counterclockwise
- b. reflection across l
- c. rotation 72° clockwise
- d. rotation 72° counterclockwise

4. Which of the following is true about diagram at right? *Circle All*

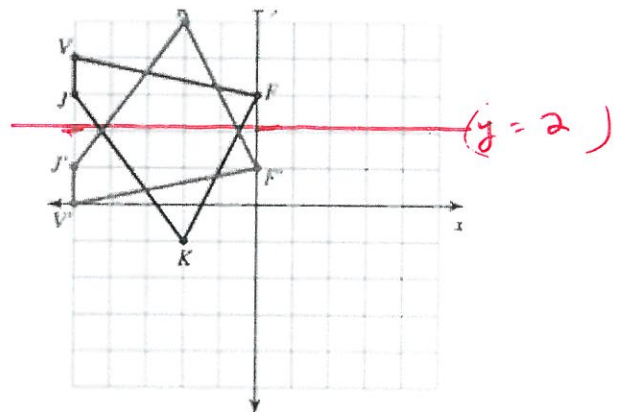
- a. $\Delta A''B''C''$ is a translation of ΔABC
- b. $\Delta A'B'C'$ is a rotation of ΔABC
- c. $\Delta A''B''C''$ is a reflection of ΔABC
- d. $\Delta A'B'C'$ is a reflection of ΔABC



5. Reflect across $y = x$



6. Find the line of reflection



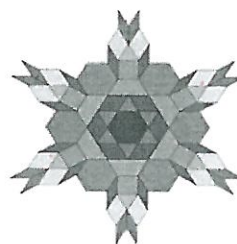
7. Describe *all* symmetry for each shape.

a.



60°
(no lines)

b.



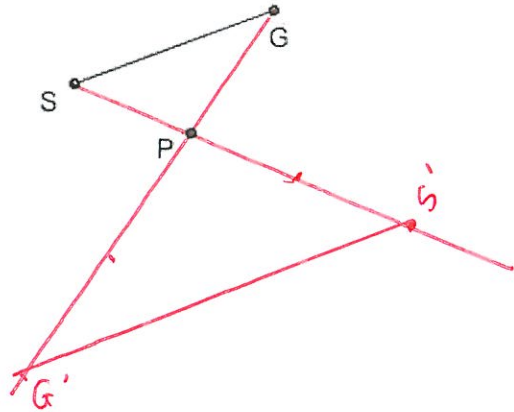
6 lines
 60°

8. Which of the transformations below will carry the regular polygon onto itself? Circle All



- a. rotation 50° counterclockwise
- b. reflection across l
- c. rotation 120° clockwise
- d. rotation 60° counterclockwise

9. Dilate: Center = P and sf = -2



10. The translation of triangle TRI is $T'(-9,-7)$, $R'(7,0)$ and $I'(12,-6)$. If the coordinate of T was $(-11,-3)$ what were the coordinates of R and I?

$R(5, 4)$ $I(10, -2)$ right 2, down 7 $\langle 2, -7 \rangle$

11. A figure is translated $\langle 3, -3 \rangle$. What translation would move it back to its original position?

$\langle -3, 3 \rangle$

12. The image of $M(2,-6)$ after a dilation about the origin is $M'(-10,30)$. What is the scale factor?

$2 \cdot x = -10$

$sf = -5$

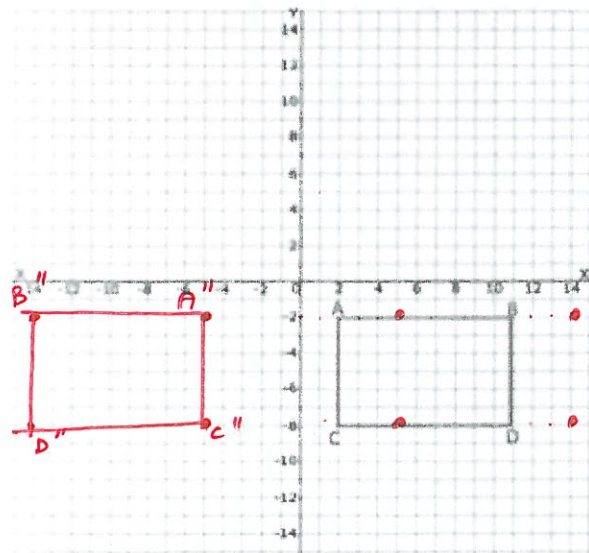
13. Which of the following rules is the composition of a dilation with scale factor of 2 and a translation 3 units right?

order matters ~~is~~

- a. $(x,y) \rightarrow (2x+3, 2y)$
- b. $(x,y) \rightarrow (2x+6, 2y)$
- c. $(x,y) \rightarrow (2x, 2y + 3)$
- d. $(x,y) \rightarrow (2x - 3, 2y)$

14. Graph the image of ABCD after:

translate $(x,y) \rightarrow (x+3,y)$ and reflect across y-axis



15. Rotate \overline{SG} about P, 80° clockwise

