

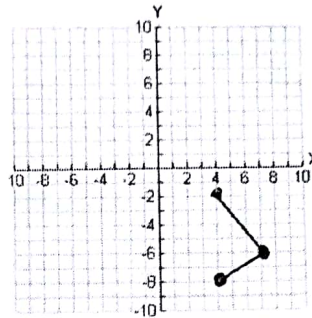
Unit 1 SG 2 – Translations, Reflections & Rotations

Name \_\_\_\_\_

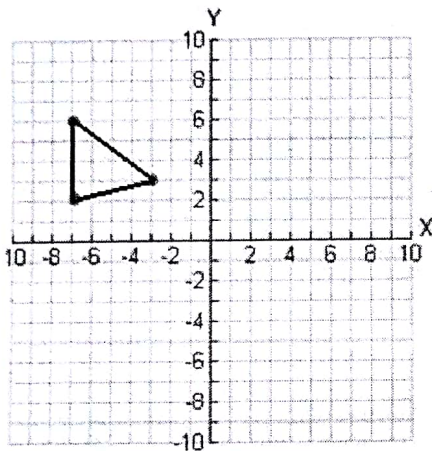
Write the counter clockwise rule for each type of rotation:

1.  $0^\circ$  \_\_\_\_\_
2.  $90^\circ$  \_\_\_\_\_
3.  $180^\circ$  \_\_\_\_\_
4.  $270^\circ$  \_\_\_\_\_

5. Rotate the line  $90^\circ$  counter clockwise.



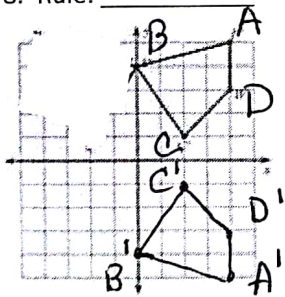
6. Rotate the line  $180^\circ$  clockwise.



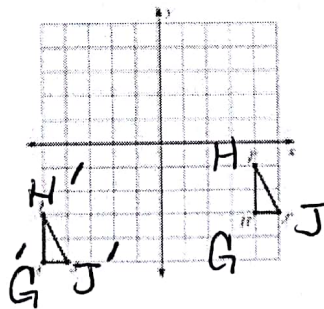
7. Using the  $(x-2, y+5)$ , find the pre-image of  $A'(-3, 5)$

Write a rule using proper notation that describes how the following figures have been transformed.

8. Rule: \_\_\_\_\_



9. Rule: \_\_\_\_\_

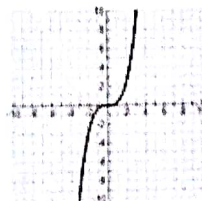


Questions 10 - 13: Determine if each function is even, odd, or neither.

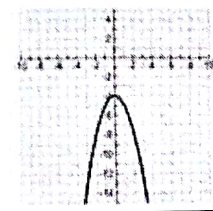
10.  $f(x) = -9x^3 + 3$   
\_\_\_\_\_

11.  $f(x) = x^4 + 2x^2$   
\_\_\_\_\_

12. \_\_\_\_\_

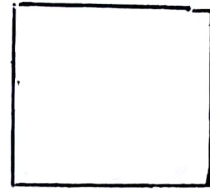


13. \_\_\_\_\_

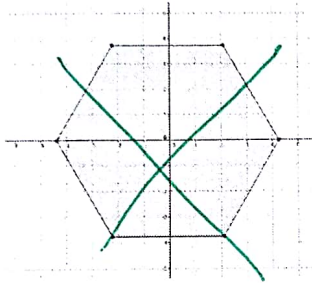
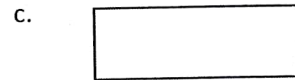


14. What geometric figure has an infinite number of lines of symmetry?

15. How many lines of symmetry does a square have? \_\_\_\_\_



18. Which shape below has 3 lines of symmetry?



19. An isometry is a transformation in which the pre-image and image are \_\_\_\_\_.

20. What is the smallest degree of rotation to map the image onto itself?

a.  $360^\circ$

b.  $180^\circ$

c.  $45^\circ$

d.  $90^\circ$

