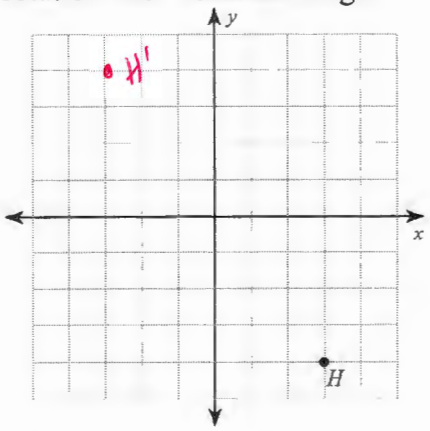
Name Answers Date

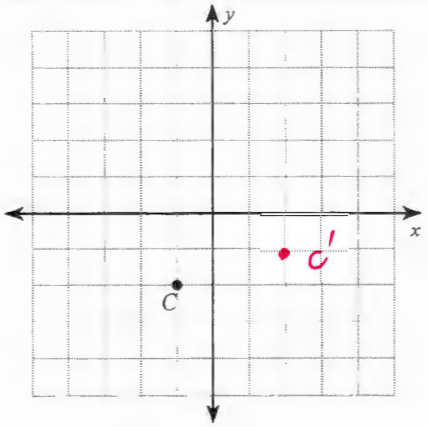
9.4 – Rotations

Find the coordinates of the vertices of each figure after the given transformation.

1) rotation 180° about the origin

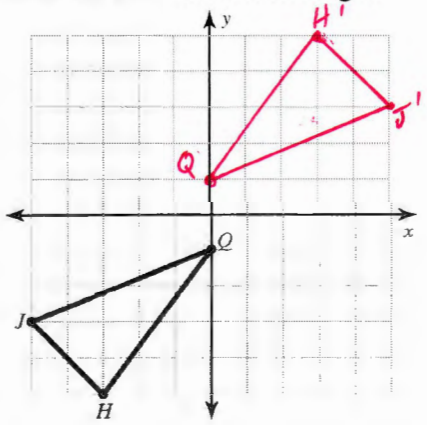


2) rotation 90° counterclockwise about the origin

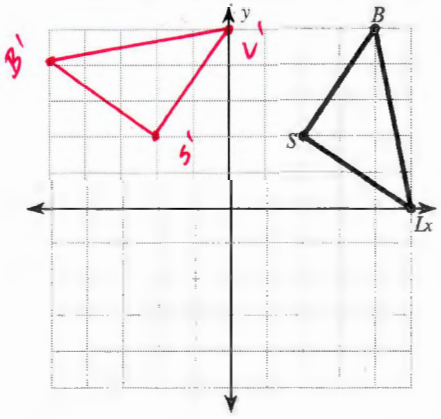


Graph the image of the figure using the given transformation

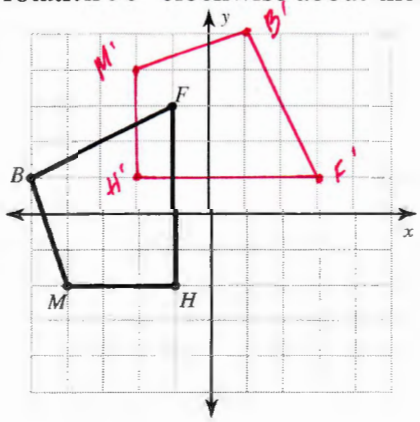
3) rotation 180° about the origin



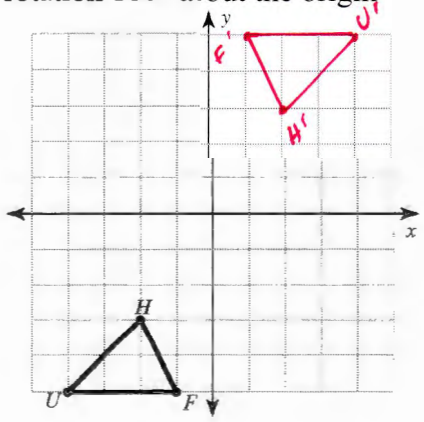
4) rotation 90° counterclockwise about the origin



5) rotation 90° clockwise about the origin

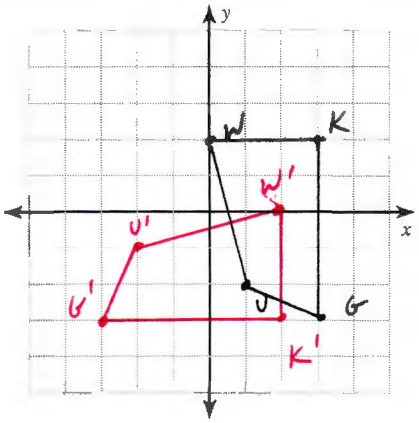


6) rotation 180° about the origin

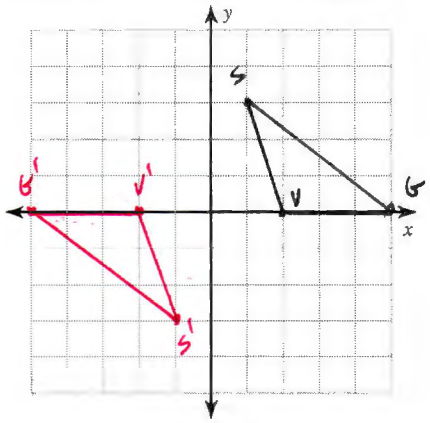


Graph the following points and then graph the image of the figure using the given transformation.

7) U(1, −2), W(0, 2), K(3, 2), G(3, −3)
rotation 90° clockwise about the origin



8) V(2, 0), S(1, 3), G(5, 0)
rotation 180° about the origin



Find the coordinates of the vertices of each figure after the given transformation.

9) rotation 180° about the origin
Z(−1, −5), K(−1, 0), C(1, 1), N(3, −2)

Z'(1,5), K'(1,0), C'(-1,-1), N'(-3,2)

10) rotation 180° about the origin
L(1, 3), Z(5, 5), F(4, 2)

L'(-1,-3), Z'(-5,-5), F'(-4,-2)

11) rotation 90° clockwise about the origin
S(1, −4), W(1, 0), J(3, −4)

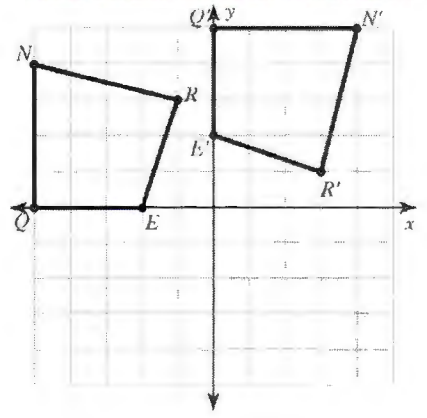
S'(-4,-1), W'(0,-1), J'(-4,-3)

12) rotation 180° about the origin
V(−5, −3), A(−3, 1), G(0, −3)

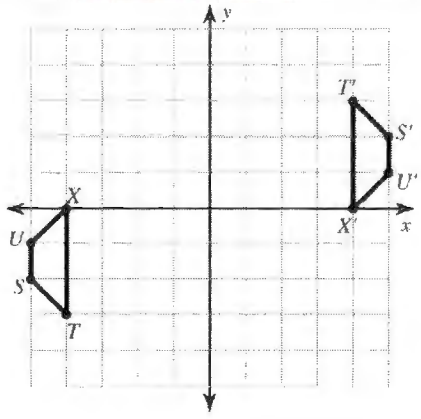
V'(5,3), A'(3,-1), G'(0,3)

Write a rule to describe each transformation.

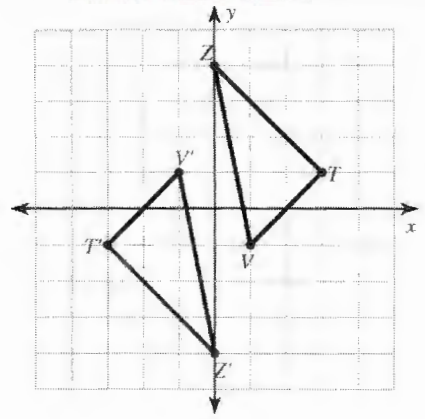
13) Rotation Clockwise 90°



14) Rotation 180°



15) Rotation 180°



16) Rotation 180°