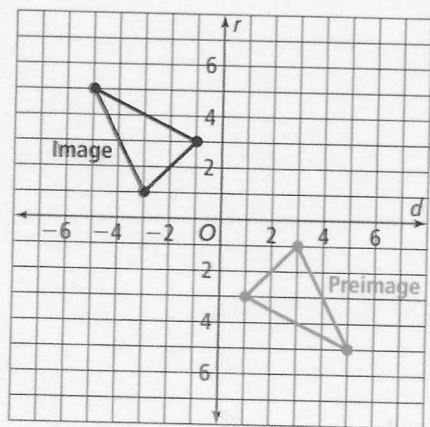# Transformations

9) Segment PQ with endpoints $P(2,-3)$ and $Q(-3,1)$ is reflected over the line $y = x$, find the coordinates of P' and Q' and write the rule for this transformation.

10) Segment TS with endpoints $T(-4,6)$ and $S(2,-1)$ is reflected over the line $y = -x$, find the coordinates of T' and S' and write the rule for this transformation.

11) What transformation maps the Preimage onto the Image?

A. Reflection over the line $y = 0$

B. Reflection over the line $x = 0$

C. Reflection over the line $y = x$

D. Reflection over the line $y = -x$

Rotations

12) Segment FG with endpoints $F(1,-3)$ and $G(2,-1)$ is rotated $90°$ clockwise about the origin, find the coordinates of F' and G' and write the rule for this transformation.

13) Segment XY with endpoints $X(2,-3)$ and $Y(-3,1)$ is rotated $90°$ counterclockwise about the origin, find the coordinates of X' and Y' and write the rule for this transformation.

14) Segment PQ with endpoints $P(2,-3)$ and $Q(-3,1)$ is rotated $180°$ about the origin, find the coordinates of P' and Q' and write the rule for this transformation.

15) Segment TS with endpoints $T(-4,6)$ and $S(2,-1)$ is rotated $270°$ clockwise about the origin, find the coordinates of T' and S' and write the rule for this transformation.

16) Segment MN with endpoints $M(7,-2)$ and $N(-5,4)$ is rotated $270°$ counterclockwise about the origin, find the coordinates of M' and N' and write the rule for this transformation.