

VUX HOY

Multiple Reflections

A. Draw and name the line of reflection.

Write the equation of the line of reflection.

$x=1$

B. The transformation in the graph is a rotation of 180 degrees

What two REFLECTIONS (done back to back) would achieve the same image?

Reflected over the x-axis
Reflect over the y-axis

C. Reflect \overline{CD} over the line $y = x$. Name its image $\overline{C'D'}$.

Now reflect $\overline{C'D'}$ over the line $y = x - 4$. Name that image $\overline{C''D''}$. What other transformation would give you the same image.

$C(0,3)$
 $D(2,4)$

$C'(3,0)$
 $D'(4,2)$

$C''(4,-1)$
 $D''(6,0)$

D. Reflect $\triangle MNP$ over the line $x = -1$. Name its image $\triangle M'N'P'$.

Now reflect $\triangle M'N'P'$ over the line $y = 2$. Name that image $\triangle M''N''P''$. What transformation did you create?

$M(-5,0)$
 $N(-2,-2)$
 $P(-4,-3)$

$M'(3,0)$
 $N'(0,-2)$
 $P'(2,-3)$

$M''(3,4)$
 $N''(0,6)$
 $P''(2,7)$

$\overline{CD} \rightarrow \overline{C''D''}$ translation
 $(x+4, y-4)$
 $\langle 4, -4 \rangle$