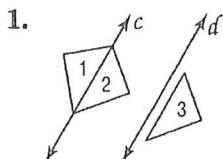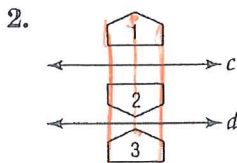# 9-2 Practice

Translations

In each figure, $c \parallel d$. Determine whether figure 3 is a translation image of figure 1. Write *yes* or *no*. Explain your answer.
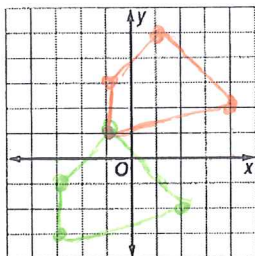
1.

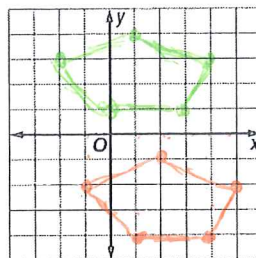No it is ~~not~~ a translation of a reflection and is oriented differently than figure 1.

2.

Yes it is a reflection of a reflection w/ respect to the parallel lines

COORDINATE GEOMETRY Graph each figure and its image under the given translation.

3. quadrilateral *TUWX* with vertices $T(-1, 1)$, $U(4, 2)$, $W(1, 5)$, and $X(-1, 3)$ under the translation $(x, y) \rightarrow (x - 2, y - 4)$

4. pentagon *DEFGH* with vertices $D(-1, -2)$, $E(2, -1)$, $F(5, -2)$, $G(4, -4)$, $H(1, -4)$ under the translation $(x, y) \rightarrow (x - 1, y + 5)$

ANIMATION Find the translation that moves the figure on the coordinate plane.

5. figure 1 → figure 2

$(x+4, y+2)$

6. figure 2 → figure 3

$(x-4, y+1)$

7. figure 3 → figure 4

$(x+3, y+3)$