

Transformations Unit

Lesson #1: Translations

*Graph each figure and the image under the given translation on a coordinate plane.
Name the new coordinates.*

a. $\triangle LIP$ with vertices $L(-3, -1)$, $I(-1, 4)$, and $P(2, 2)$ under the translation $(x, y) \rightarrow (x + 2, y - 4)$.

b. Quadrilateral DUCK with vertices $D(2, 2)$, $U(4, 1)$, $C(3, -2)$, and $K(0, -1)$ under the translation $(x, y) \rightarrow (x - 4, y + 3)$

c. $\triangle RST$ with vertices $R(-4, -1)$, $S(-1, 3)$, and $T(-1, 1)$ under the translation $(x, y) \rightarrow (x + 4, y - 2)$

d. Quadrilateral BAND with vertices $B(-3, -3)$, $A(2, -3)$, $N(5, 1)$, and $D(1, 1)$ under the translation $(x, y) \rightarrow (x - 2, y + 5)$.

e. Pentagon MOUSE with vertices $M(-1, -2)$, $O(2, -1)$, $U(5, -2)$, $S(4, -4)$, and $E(1, -4)$ under the translation $(x, y) \rightarrow (x - 1, y + 7)$

f. Quadrilateral MATH with vertices $M(4, 1)$, $A(2, 4)$, $T(0, 6)$, and $H(1, 2)$ under the translation $(x, y) \rightarrow (x - 2, y - 3)$.