

The points $A(3, 2)$, $B(-3, 2)$, $C(-3, -2)$, $D(3, -2)$; $A(3, 2)$, $B(-3, 2)$, $C(-3, -2)$, $D(3, -2)$, represent the vertices of a polygon. Use matrix addition to find the coordinates of the image after a translation 2 units left and 4 units down. Graph the pair of figures on the same coordinate plane.

SOLUTION

The coordinates (x, y) after a translation 2 units left and 4 units down move to

$$(x - 2; y - 4)$$

$$A(3;2) \rightarrow X(1;-2);$$

$$B(-3;2) \rightarrow Y(-5;-2);$$

$$C(-3;-2) \rightarrow Z(-5;-6);$$

$$D(3;2) \rightarrow T(1;-6)$$

