TRANSLATION

ANSWERS

Graph the original figure. Then find the new coordinates of the vertices after the given translation and graph the new translated image.

HELPFUL EXAMPLE

If given a translation in the form of an ordered pair, add the ordered pair to the coordinates of each vertex of the original figure.

Original figure vertices: $E(-3,1)$; $F(0,-2)$; $G(-4,-2)$.

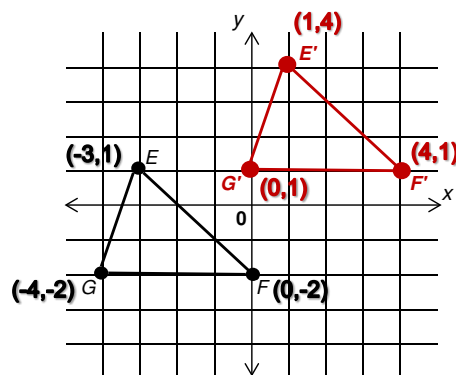Find the coordinates of its vertices if it is translated by **(4,3)**.

$E(-3,1) + $ **(4,3)** $\longrightarrow$ (-3 **+ 4** , 1 **+ 3**) = (1,4)
$F(0,-2) + $ **(4,3)** $\longrightarrow$ (0 **+ 4** , -2 **+ 3**) = (4,1)
$G(-4,-2) + $ **(4,3)** $\longrightarrow$ (-4 **+ 4** , -2 **+ 3**) = (0,1)

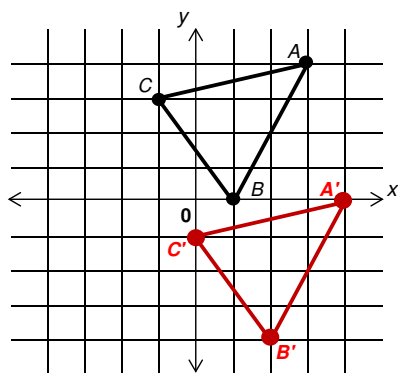The vertices of the new translated figure:
E'(1,4), F'(4,1), and G'(0,1).
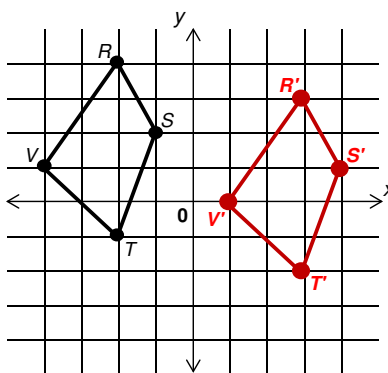
Now your turn.

1.
Polygon *ABC* with vertices:
$A(3,4)$; $B(1,0)$; $C(-1,3)$
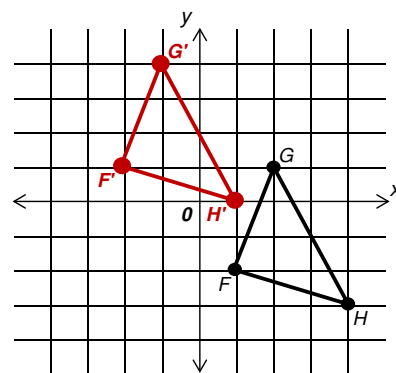
Translated by (1,-4)

2.
Polygon *RSTV* with vertices:
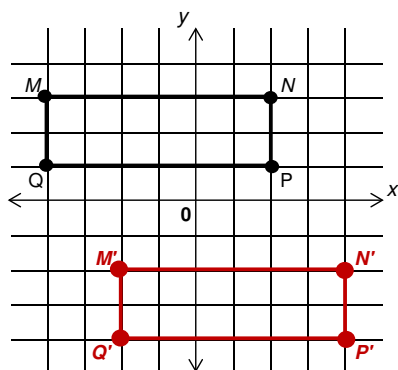$R(-2,4)$; $S(-1,2)$; $T(-2,-1)$; $V(-4,1)$

Translated by (5,-1)

3.
Polygon *FGH* with vertices:
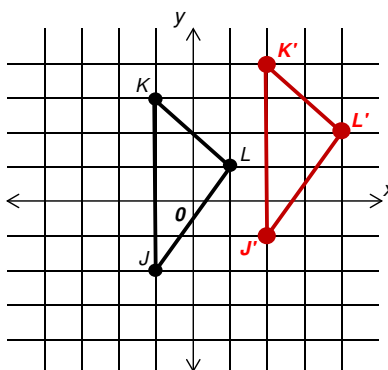$F(1,-2)$; $G(2,1)$; $H(4,-3)$

Translated by (-3,3)

4.
Polygon *MNPQ* with vertices:
$M(-4,3)$; $N(2,3)$; $P(2,1)$; $Q(-4,1)$

Translated by (2,-5)

5.
Polygon *JKL* with vertices:
$J(-1,-2)$; $K(-1,3)$; $L(1,1)$

Translated by (3,1)

6.
Polygon *CDE* with vertices:
$C(1,1)$; $D(4,3)$; $E(3,-2)$

Translated by (-5,-2)