

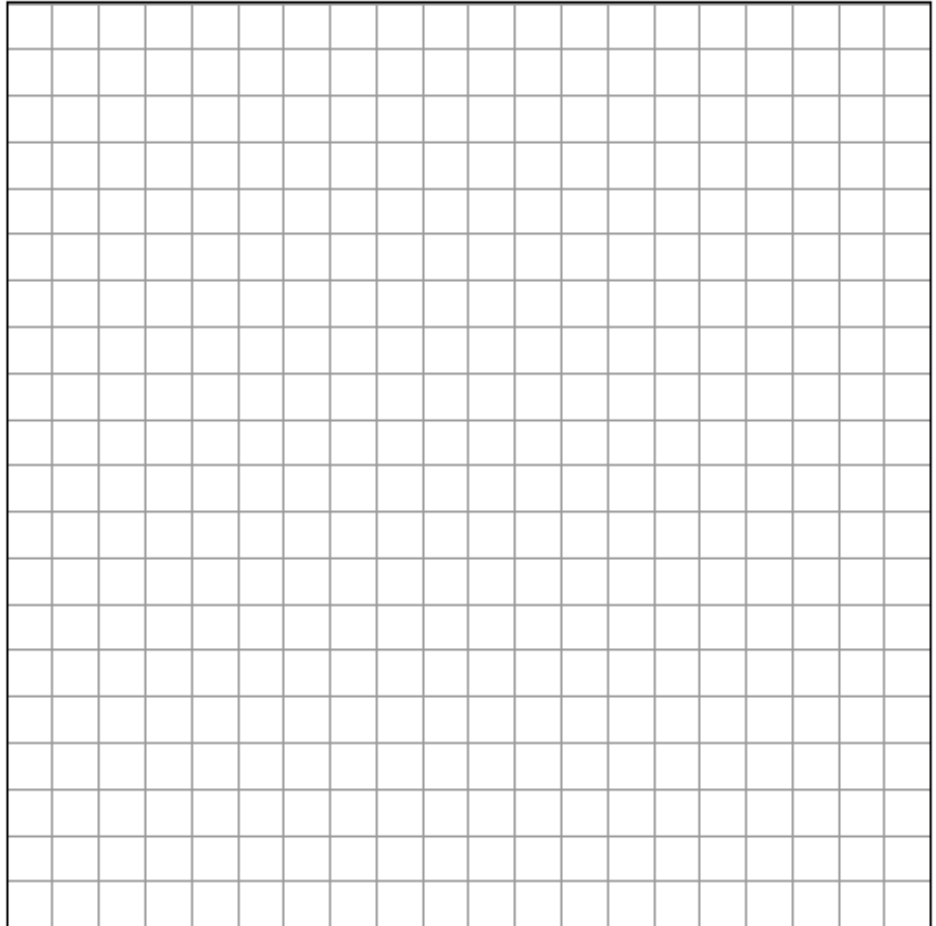
# Translations

On the accompanying grid, graph  $\triangle RST$  with coordinates  $R(3, 2)$ ,  $S(-1, 4)$ , and  $T(1, -2)$ .

On the same set of axes, graph and state the coordinates of  $\triangle R'S'T'$ , the image of  $\triangle RST$  under  $T_{-6, -2}$ .

Show that  $RS = R'S'$ .

Show that  $RS \parallel R'S'$ .



**29** Two parabolic arches are to be built. The equation of the first arch can be expressed as  $y = -x^2 + 9$ , with a range of  $0 \leq y \leq 9$ , and the second arch is created by the transformation  $T_{7,0}$ . On the accompanying set of axes, graph the equations of the two arches. Graph the line of symmetry formed by the parabola and its transformation and label it with the proper equation.

