

PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** January 14 to January 18**DAY:** Tuesday

RISD Objective: Given a figure in the coordinate plane, students will be able to determine the coordinates of its image after it has undergone a translation, reflection, 180° rotation about the origin, or dilation.

PROBLEM #83

A triangle is defined by the points (3, 4), (10, -5), and (-9, -1). Find the coordinates of the points after the triangle has been translated 7 units up. Explain your work.

MODEL SOLUTION #83

Translating a figure vertically involves a change in its y-coordinates. Since, in this case, the change is up seven, I must add seven to the y-coordinates. They become (3, 11), (10, 2), and (-9, 6).