PROBLEM-OF-THE-DAY: ALGEBRA 1

WEEK: January 14 to January 18 **DAY:** Thursday

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, 180º rotation about the origin, or dilation.

PROBLEM #85

The triangle defined by the points (-3, 5), (4, 1), and (1, -2) is being dilated by a scale factor of 4 from the origin. Find the coordinates of the new points and explain how you got your answer.

MODEL SOLUTION #85

A dilation involves multiplying by a scalar number. In this case, all of my coordinates must be multiplied by four. The new coordinates will be (-12, 20), (16, 4), and (4, -8).