Cartesian Coordinates

Practice Your Understanding

Name: ______ Date: _____

1. Graph the points (-3, 5), (2, 1), (-7, 4), and (6, -1) and connect these points together drawing lines on the graph below linking them. Find the area of the shape formed. (Hint: use the area formulas you have learned in previous exercises). Show all all work for calculating the area below, plot the points, and shade in the area of the shape formed by those points:



2. Using the reflection formulae, from the Cartesian Coordinates Simulation, reflect the shape about the x and y axes. Show all all work using the reflection formulae, plot the original shape and reflected points of the new shapes below:



3. Using the translation formulae, from the Cartesian Coordinates Simulation, translate the shape 3 units to the left and 2 down. Show all all work using the translation formulae, plot the original shape and translated points of the new shapes below:



4. Using the dilation formulae, from the Cartesian Coordinates Simulation, dilate the shape by a factor of 2. Show all all work using the dilation formulae, plot the original shape and dilated points of the new shapes below:

5. Using the rotation formulae, from the Cartesian Coordinates Simulation, rotate the shape by 90. Show all all work using the rotation formulae, plot the original shape and rotated points of the new shapes below:

6. Using the distance formula, calculate the distance between the points (-3, 5) and (-7, 4), and between the points (2, 1) and (6, -1). Show all all work using the distance formula, plot the original shape and include the distances between the points by the distance lines between those points. Record everything in the text-box and graph below: