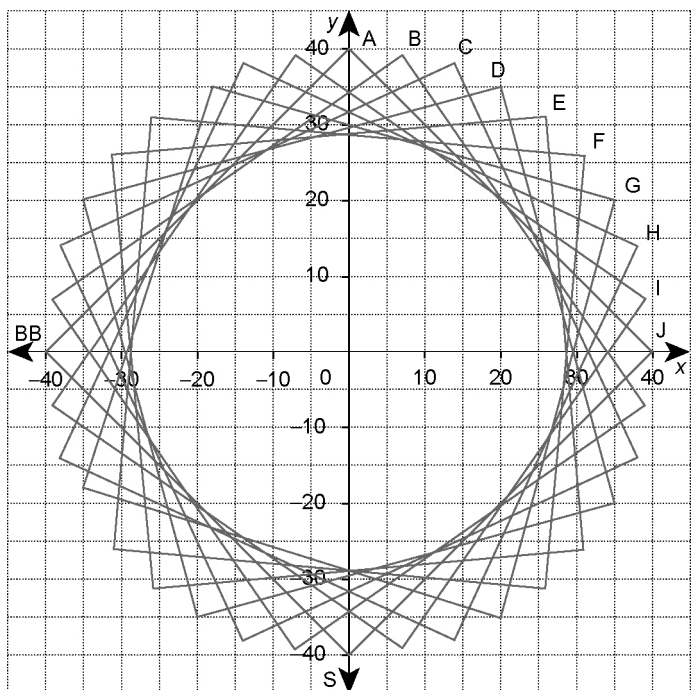
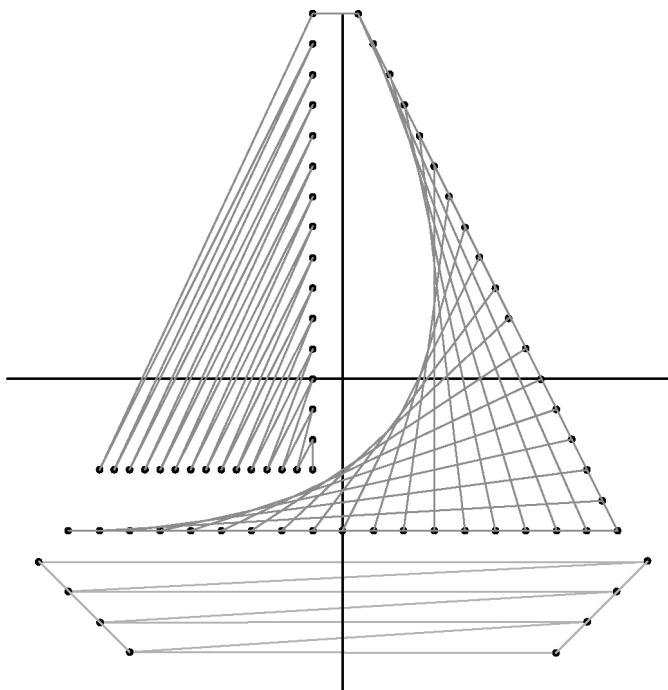


# Chapter 1 Gifted and Enrichment

**1.** The design shown is made by first creating a square with corners at points A, J, S, and BB. Then, the square is rotated the same amount each time until point A moves to point J. Determine the coordinates for the points from A to J.



**2.** Each shade in the string art shown is a single piece of string that runs from one nail to another to create a sailboat. Imagine that the black lines represent the x-axis and y-axis. Draw a coordinate grid and plot the coordinates of the nails.



**3.** Create a design using geometric shapes. Draw your design as a set of coordinates in quadrant II of a coordinate grid. Then, create a mirror image of the design in each of the other three quadrants, using the x-axis and y-axis as lines of reflection. Try to create a design that is not symmetrical.

**4.** On a coordinate grid, create a set of points that result in a picture when the points are joined without lifting the pencil from the paper. Number the points in the order that they should be joined.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

5. Create the following line segments on a coordinate grid. Make three suggestions as to what the final design might represent.

Line Segment Number	Line Segment - Point A		Line Segment - Point B	
	x Coordinate	y Coordinate	x Coordinate	y Coordinate
1	-8	2	8	2
2	-8	9	8	9
3	-2	11	14	11
4	-8	9	-2	11
5	8	9	14	11
6	8	2	14	5
7	-8	9	-8	2
8	8	9	8	2
9	14	11	14	5
10	-7	8	4	8
11	5	8	7	8
12	-7	3	4	3
13	5	3	7	3
14	-7	8	-7	3
15	4	8	4	3
16	5	8	5	3
17	7	8	7	3
18	2	7	3	7
19	2	4	3	4
20	2	7	2	4
21	3	7	3	4