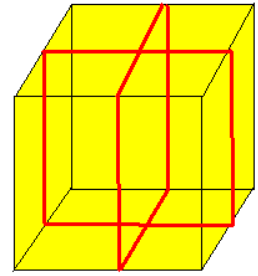


Looking For Relationships

Materials Needed:

Connecting Cubes
 Graphing Calculators
 Recording Sheet

Distribute 64 cubes to each group of 4 students
 Have students build cubes that have sides equal to 1 unit, 2 units, 3 units, 4 units. Students are to find the following information about their cube and record it in the appropriate chart.



Ribbon around cube

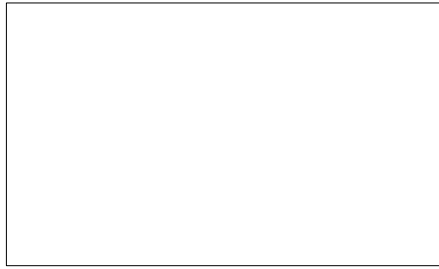
Length of side
 Length of Ribbon to wrap package
 Area of one face
 Volume of Cube

Length of Side	Length of Ribbon

Length of Side	Area of One Face

Length of Side	Volume of Cube

Enter the data in the TI-73 using the Lists.
 Create Scatterplots for each table.
 Record sketches of each graph.



Describe how the graphs are different and how they are the same.

Study the pattern and try to write an algebraic expression that could describe each scatterplot.

Enter this equation in your calculator and see if it first the scatterplot.

Make predictions for the length of ribbon needed, area of one side, and the volume of a figure whose side is 10 units.

Create a table to study other values in between the integers.

Length of Side	Length of Ribbon
2.5	
$7\frac{3}{4}$	
3.9	
$12\frac{2}{5}$	

Length of Side	Area of One Face
2.5	
$7\frac{3}{4}$	
3.9	
$12\frac{2}{5}$	

Length of Side	Volume of Cube
2.5	
$7\frac{3}{4}$	
3.9	
$12\frac{2}{5}$	