CALCULUS **Name**_____
Mr. Barnard **Date**_____

Unit 1 Project
"Analyzing Trends in Data"

*DATA BEING ANALYZED:*_____

Your first year of data shall be "year 1".

Year		Data
	1	

Equation Type	***Form of the Equation***	***r***	***r^2***
Linear	$ax + b$		
Quadratic	$ax^2 + bx + c$		
Cubic	$ax^3 + bx^2 + cx + d$		
Quartic	$ax^4 + bx^3 + cx^2 + dx + e$		
Logarithmic	$a + b\ln x$		
Exponential	ab^x		
Power	ax^b		

x is the variable while a, b, c, d, and e are constants

r = coefficient of correlation

r^2 = coefficient of determination

*Based on the coefficients obtained, which model (equation type) seems to be the best predictor?

_____

*Based on the graphs only, which GRAPH'S SHAPE best fits the data shape?

_____

*Use the graphing calculator and go back to the best model based FIRST on the graph and SECONDLY on r^2. Write the full equation with constants rounded to hundredths.

_____

*Use this model to predict the data in the given years (if a negative number, write 0):

2020: _____ 2050: _____