

ALGEBRA II
Chapter 11 section 5
Choose the Best Model for Two - Variable Data
pg. 775

FOCUS:

How can you choose the best model for two - variable data?

WARM – UP:

Find the value of y if x = 15.

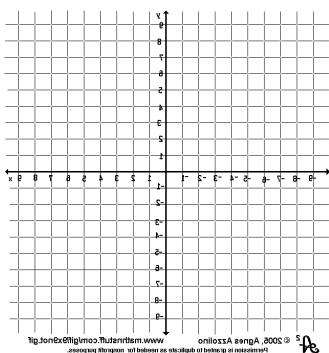
1. $y = -0.05x^2 + 0.7x + 10.2$ _____ 2. $y = 68.3(0.878)^x$ _____ 3. $y = 57.3x^2 - 16.9x$ _____

4. The equation $y = 21.1x^2 + 1364$ models the amount x (in dollars) that your family has spent each year y since 1997 on vacations. How much did your family spend on vacation in 2005? How much do you predict 2013 vacation will cost?

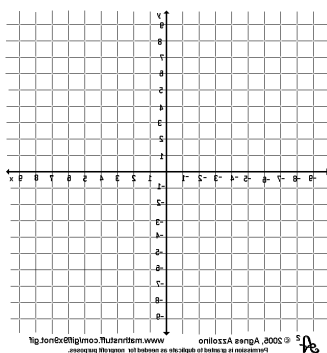
2005: _____ 2013: _____

Review graphs of different functions:

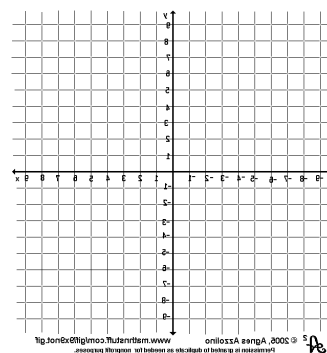
Linear



Exponential



Quadratic



NOTES:

The table shows the cost of a meal x (in dollars) and the tip y (in dollars) for parties of 6 at a restaurant. Use a graphing calculator to find a model for the data.

x	y
34.48	5.50
52.54	11
89.64	15
100.76	16
65.60	12
109.34	21

You are storing leftover chili in a freezer. The table shows the chili's temperature y (in degrees Fahrenheit) after x minutes in the freezer. Use a graphing calculator to find a model for the data.

x	y
0	100
10	75
20	50
30	35
40	28
50	20
60	15

The table shows the amount y (in dollars) of money in your savings account after x weeks. Use a graphing calculator to find a model for the data.

x	y
0	0
1	200
2	250
3	300
4	300
5	300
6	315
7	340
8	405