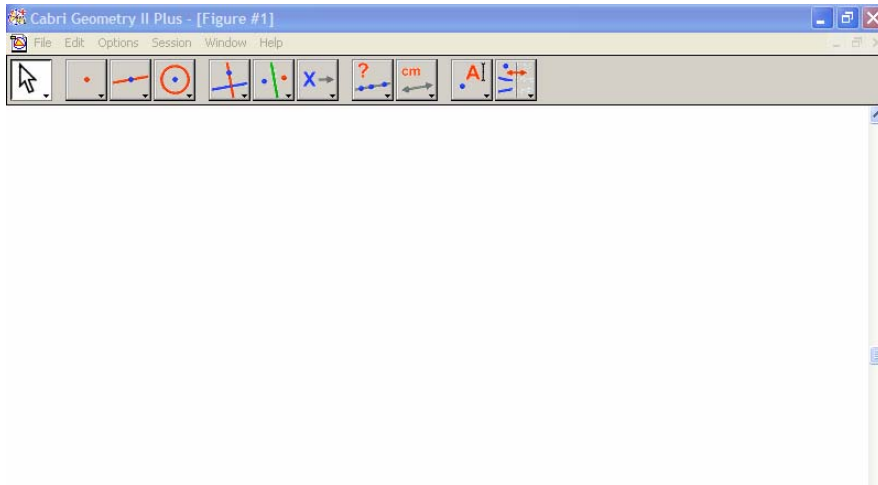


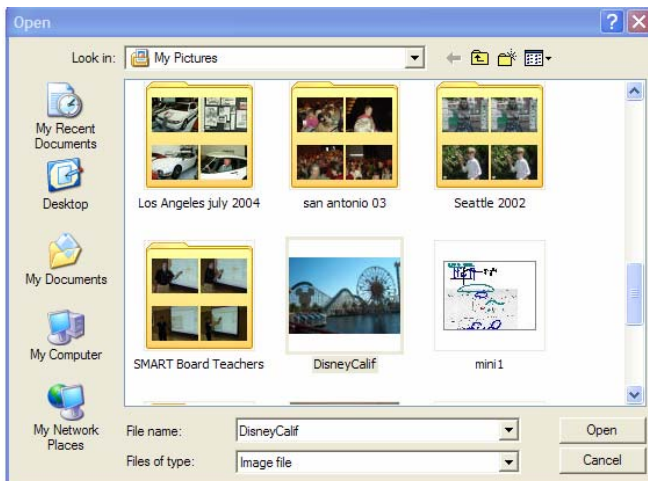
Importing a picture into Cabri II Plus and finding an equation of best fit The Disney Roller Coaster Problem

1. Open Cabri II Plus.

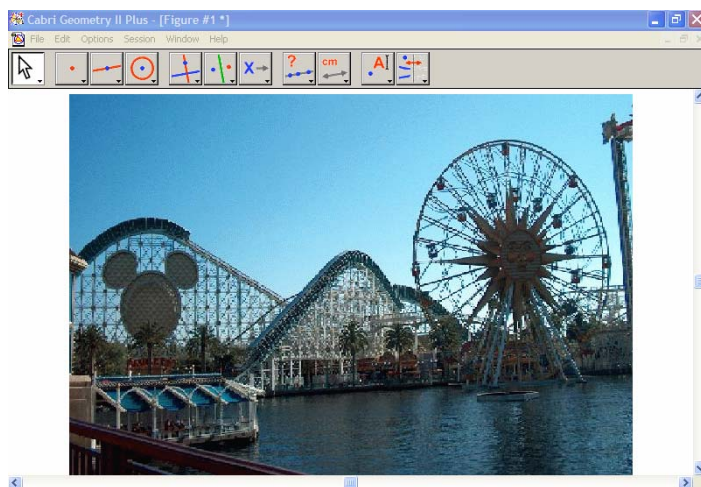


2. Import picture by right clicking on the Cabri screen, select Background Image, From file.

3. "Find" the digital picture on your computer.



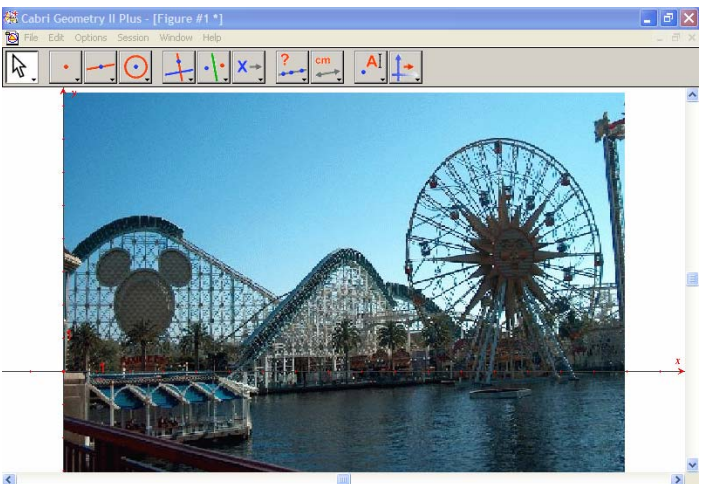
4. Center picture as needed by using the sliders.



5. Click on the last icon on the top row and select: Show Axes.



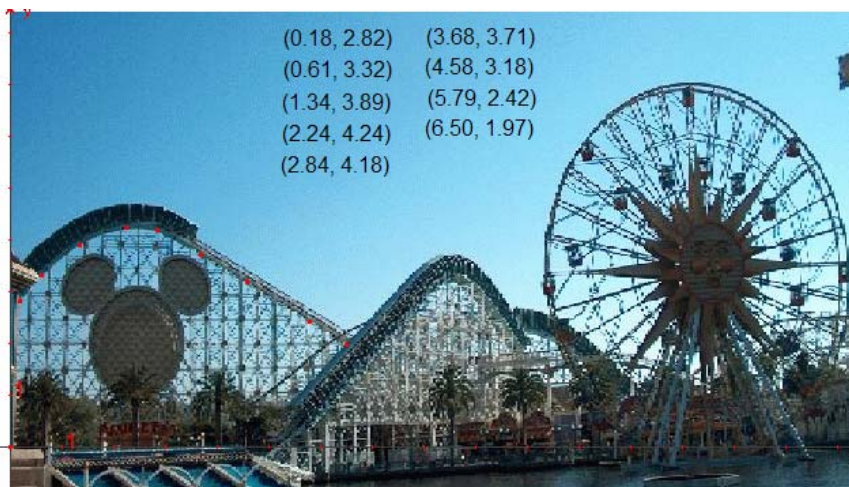
6. Position the axes where appropriate by left clicking and holding down on the origin and moving the axes. Make sure you "grab" the origin and not just an axis.



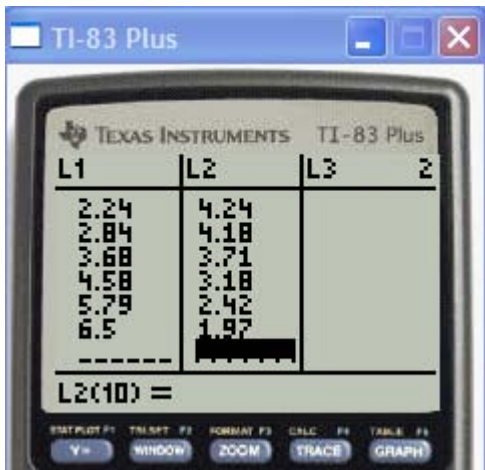
7. Click on the second icon and select Point. Then select about 5 to 10 points along the curve that you want to model with an equation.



8. Then click on the third to the last icon (third from the left) and select Equation or Coordinates. Select each red point to find its coordinates and move those ordered pairs where they can be seen easily.



9. Bring up a graphing calculator emulator and place the data into lists. Enter the x-coordinates into List L1 and the y-coordinates into List L2.

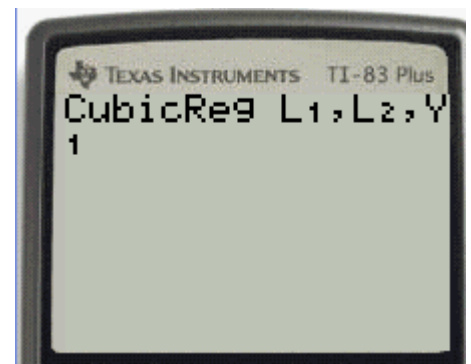


10. Calculate a cubic regression by:

STAT

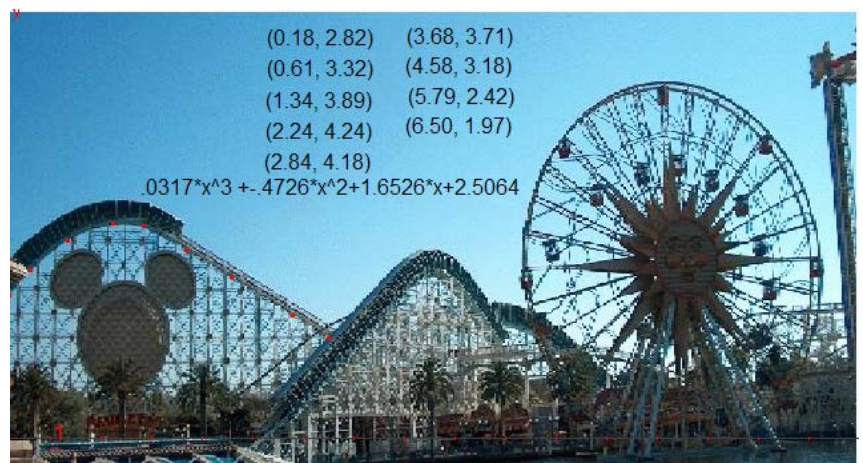
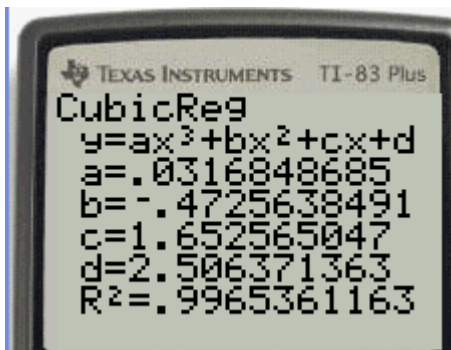
CALC 6:CubicReg

L1, L2, Y1

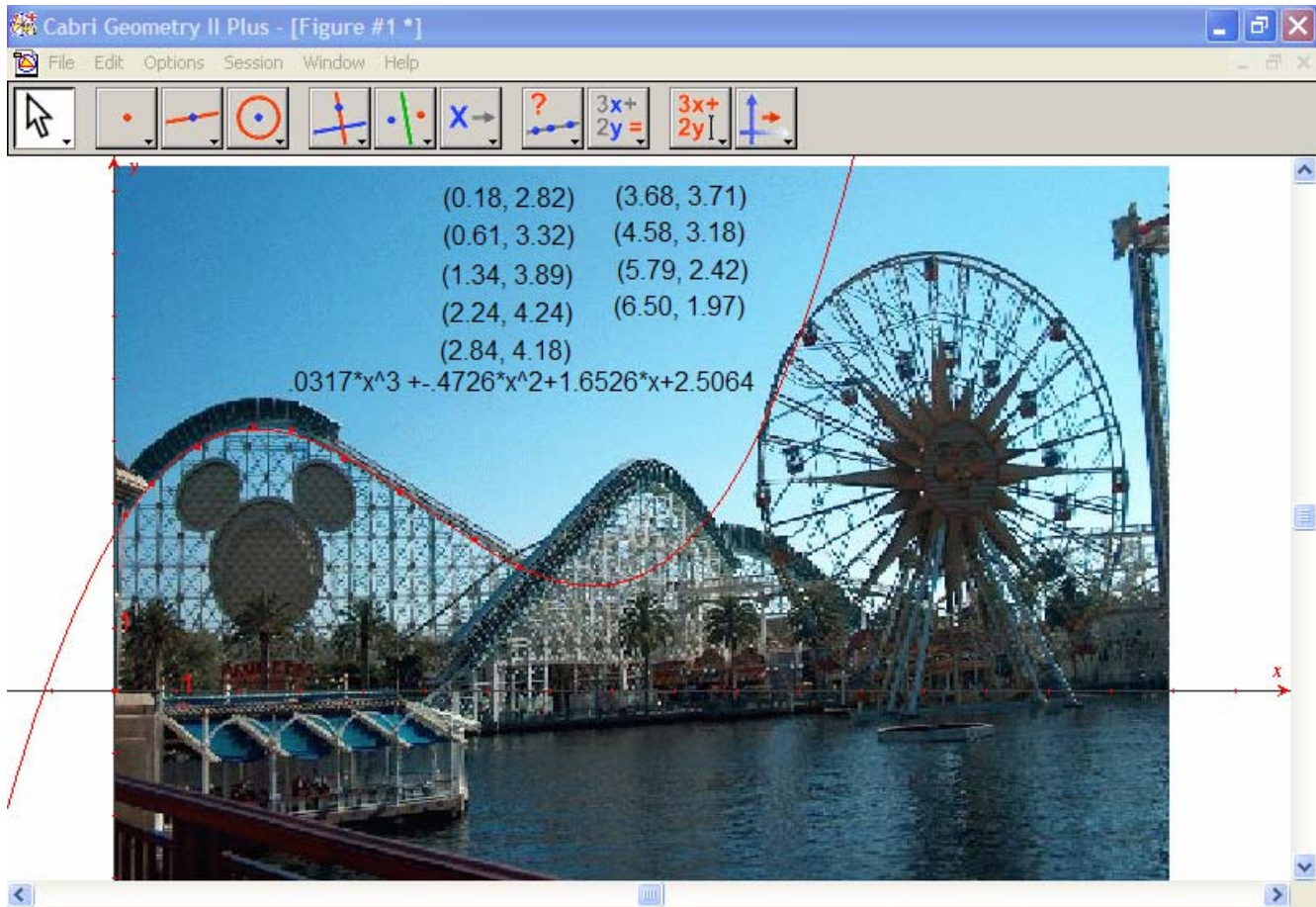


11. Enter

12. Type the expression (rounded) onto the Cabri screen by using the second icon from the left, and selecting Expression.



13. To graph the equation described by the expression:
- Select the third icon from the left
 - Select Apply an Expression
 - Click on the expression
 - Click on the x-axis
 - Adjust the thickness and color of the curve as needed.



14. Please notice that the curve does seem to fit the data nicely. Also notice that the domain of the regression equation and the domain of the problem situation are very different.