

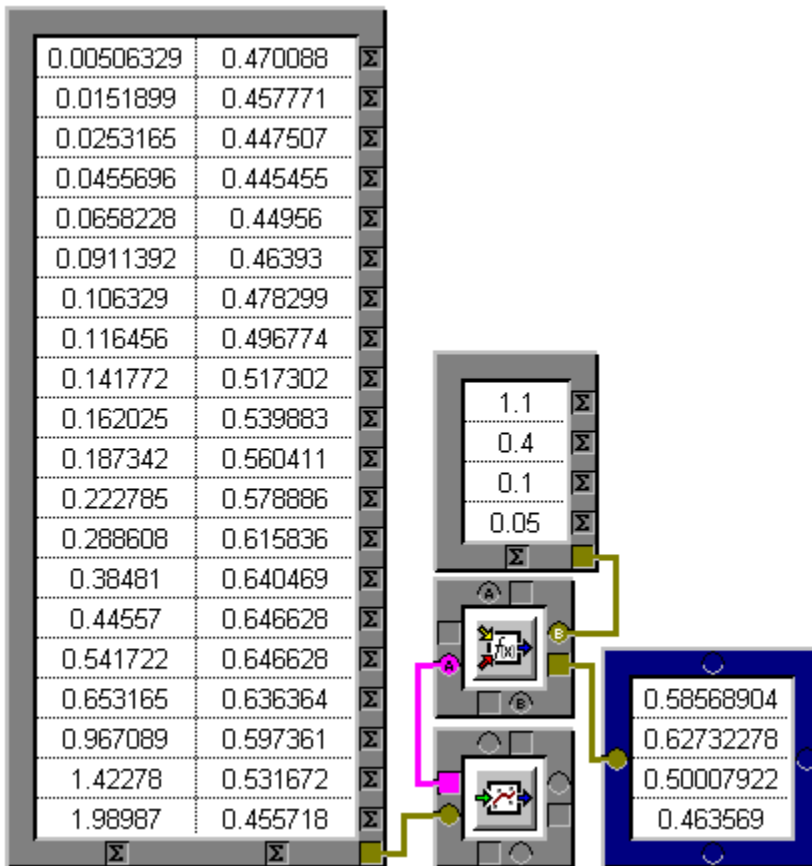
## Empirical Functions 2

FILE: Emp2.cln

### Introduction

The file Emp1.cln demonstrated empirical functions done by tracing the curve onto an XY Scatter Calculation graph. In this example we have the same points, from the same function, but this time we are going to approximate them with a curve using the Curve Fit object and evaluate that curve with the Evaluate Object for the same set of points to see if we obtain the same results.

This is very similar to the approach you have to take with a traditional spreadsheet, but with one improvement - we are going to use a polynomial curve because it produces better results.



Click on each part to have it explained.

The finished results are different, you should understand that the example in Emp1.cln is a much nearer result than the results from this Curve Fit/Evaluator pair - **the curve is only an approximation.**

**CurveFit XY Scatter Calculation**

0.58568904 0.57625744  
0.62732278 0.64200879  
0.50007922 0.47231182  
0.463569 0.44635263

This is an Input Table object, here it is used to input the XY points that were read off the curve that defines out function.

This is a Curve Fit object, it fits a curve to a set of data points. In this case it is fitting a 4th order polynomial to the curve.



To see how well a curve fits a set of data points feed both into an XY Scatter graph and see.

This is an Evaluator Object - it evaluate the equation from the Curve Fit object for the specified set of data points.

This is an Input Table object, it is used here to input our trial X values  
- the same X values we used with the Emp1.cln example.

This is an Output Table, we have used it here to display the results of the evaluation.

