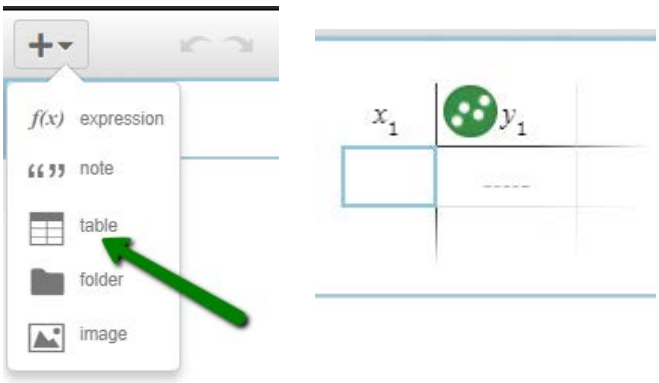
Regression Using Desmos

1. **Enter the Data by adding a table**

x_1 is the input data

y_1 is the output data



2. **Create the regression equation**
   a. The overall syntax is:

$y_1 \sim$ (function choice with any letter choice parameters a, b, c,…) and x_1 as the input variable

Samples:

Linear

$y_1 \sim ax_1 + b$ **or** $y_1 \sim hx_1 + z$

Quadratic

$y_1 \sim ax_1^2 + bx_1 + c$

Cubic

$y_1 \sim ax_1^3 + bx_1^2 + cx_1 + d$

Logistic

$$y_1 \sim \frac{a}{\left(1 + be^{(-cx_1)}\right)}$$

Quartic

$y_1 \sim ax_1^4 + bx_1^3 + cx_1^2 + dx_1 + f$

Do NOT use "e" as a parameter; desmos reserves "e" as 2.71828...
Use any other letter

Exponential

$y_1 \sim a \cdot b^{x_1}$

Log Mode

Click the "Log Mode" button

Power

$y_1 \sim a \cdot x_1^b$

The parameters and correlation coefficient will populate below the model of choice as shown:

Correlation Coefficient

Model Parameters