Straight-Line LINEAR REGRESSION -- fit data into the following linear form:
\[ y(x) = a_0 + a_1 x \]
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Assign data within a MathCAD worksheet to vectors \( x \) and \( y \) interactively.

\[
i := 0 .. 1000 \quad \text{... give a large number so that we do not have to count; redimension later.} \quad i := 0 .. 4 \quad \text{ (for v8-v15)}
\]
\[
x_i := \quad y_i := \begin{array}{ll}
1 & 11 \\
2 & 19 \\
3 & 34 \\
4 & 50 \\
5 & 73 \\
\end{array}
\]
\[
i := 0 .. \text{last}(x) \quad \text{... total number of observations} = \text{last}(x) = 4
\]

Find the intercept, slope, and \( R^2 \) correlation coefficient

\[
a_0 := \text{intercept}(x, y) \quad a_0 = -9.1 \\
a_1 := \text{slope}(x, y) \quad a_1 = 15.5
\]
\[
\text{corr}(x, y)^2 = 0.971
\]

Regression Line:

\[
R(x) := a_0 + a_1 x
\]

Plot \( xx := 0, 0.1 .. 5 \)