Lab 1 – Agilent VEE Basics

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Objective

1. Learn the function of the following objects in Agilent VEE:
    *   Formula
    *   Integer and Real Constant
    *   Integer and Real Slider
    *   Alphanumeric Display
    *   Logging Alphanumeric Display
    *   Strip Chart Recorder
    *   Count for Range
    *   Start Button

2. Learn to perform the following tasks in Agilent VEE
    *   Connect data threads between objects
    *   Connect sequence threads between objects
    *   Change the title bar of an object
    *   Add data inputs to an object
    *   Autoscale a display
    *   Set a slider to Auto Execute

Equipment

*   Agilent VEE software package

Experiment

Create a graphical program that computes the following formula:

$$y(x) = a_1 \sin x + a_3 \sin 3x + a_5 \sin 5x + a_7 \sin 7x$$

Display y over the range $0 < x < 360$ for various values of $a_1 ... a_7$. Your program should include a method for setting these constants and observing the resulting function $y(x)$.
For what values of the four constants $a_1 ... a_7$ does $y(x)$ look most like the following square function?

```
3y
A------+       U-----+       U------+
3      3       3     3       3      3
3      3       3     3       3      3
--+-------+--- ---+-------+------+-------+------> t
3      3       3     3       3      3
3      3       3     3       3
3      A--------U     A-------U
3
```