

Задание переменных и функций :

$x = 1$; $F[x_] := x^2$;

Применение функции :

$F @ x$ ($\Leftrightarrow F[x]$)

$x // F$ ($\Leftrightarrow F[x]$)

$F @@ \{x, y, z\}$ ($\Leftrightarrow F[x, y, z]$)

$F /@ \{x, y, z\}$ ($\Leftrightarrow \{F[x], F[y], F[z]\}$)

Анонимные функции :

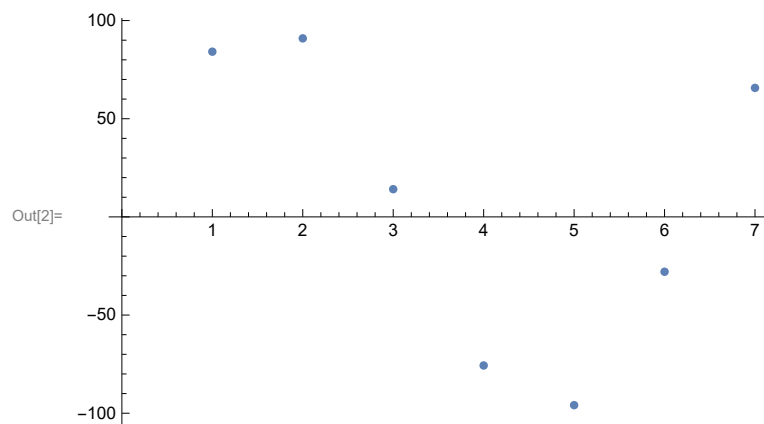
$\#^2 \&$ ($\Leftrightarrow F[x_] := x^2$)

Графики

In[1]:= **tab = 100 Sin /@ Range[7]**

Out[1]= {100 Sin[1], 100 Sin[2], 100 Sin[3], 100 Sin[4], 100 Sin[5], 100 Sin[6], 100 Sin[7]}

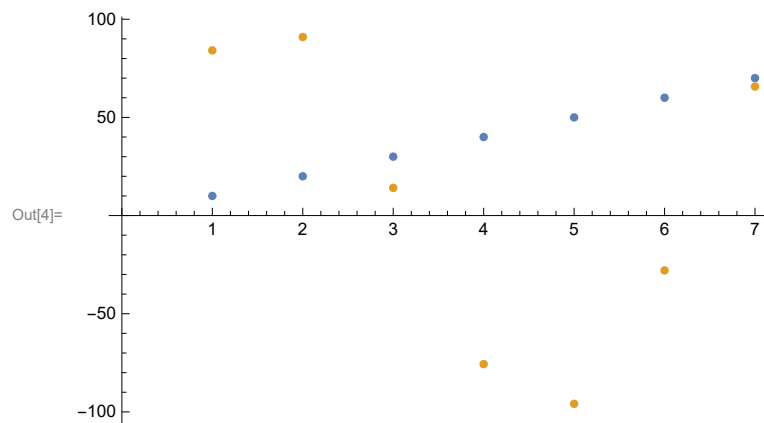
In[2]:= **ListPlot[tab]**



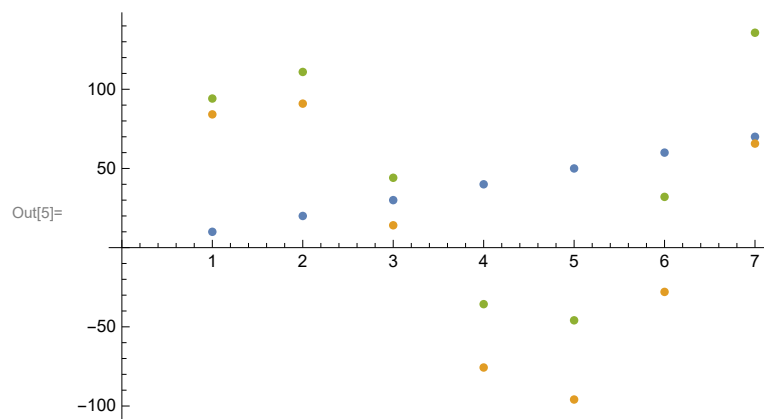
In[3]:= **xs = 10 Range[7]**

Out[3]= {10, 20, 30, 40, 50, 60, 70}

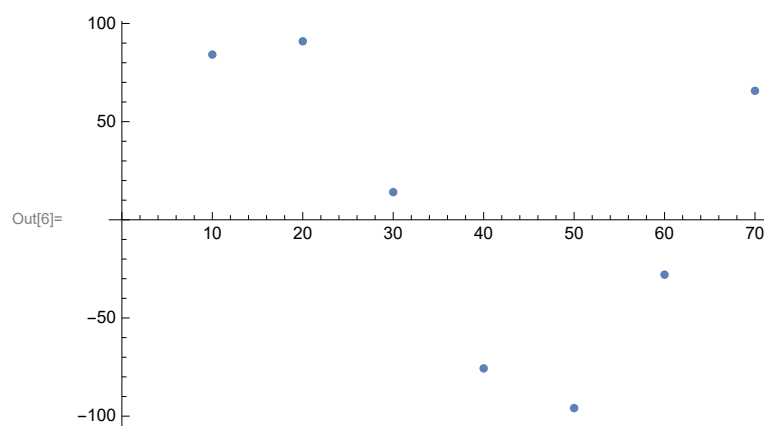
In[4]:= **ListPlot[{xs, tab}]**



In[5]:= **ListPlot**[{xs, tab, xs + tab}]



In[6]:= **ListPlot**[{xs, tab}^T]

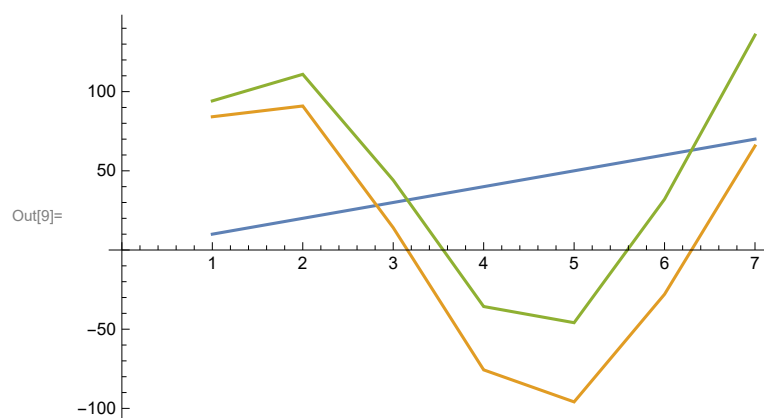


In[7]:= {xs, tab}
{xs, tab}^T

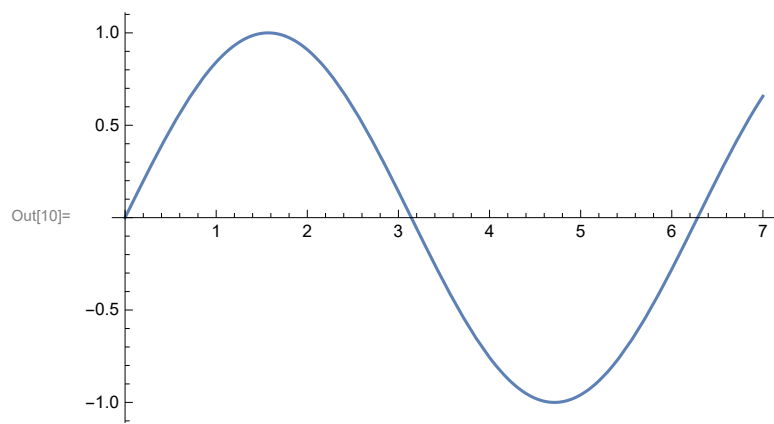
Out[7]= {{10, 20, 30, 40, 50, 60, 70},
{100 Sin[1], 100 Sin[2], 100 Sin[3], 100 Sin[4], 100 Sin[5], 100 Sin[6], 100 Sin[7]}}

Out[8]= {{10, 100 Sin[1]}, {20, 100 Sin[2]}, {30, 100 Sin[3]},
{40, 100 Sin[4]}, {50, 100 Sin[5]}, {60, 100 Sin[6]}, {70, 100 Sin[7]}}

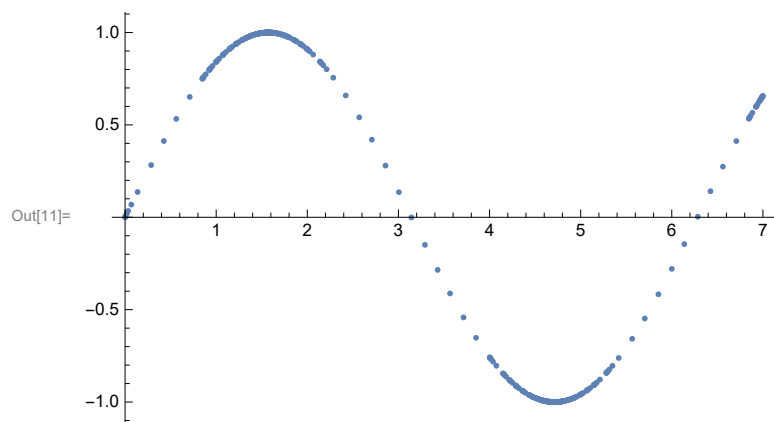
In[9]:= **ListLinePlot**[{xs, tab, xs + tab}]



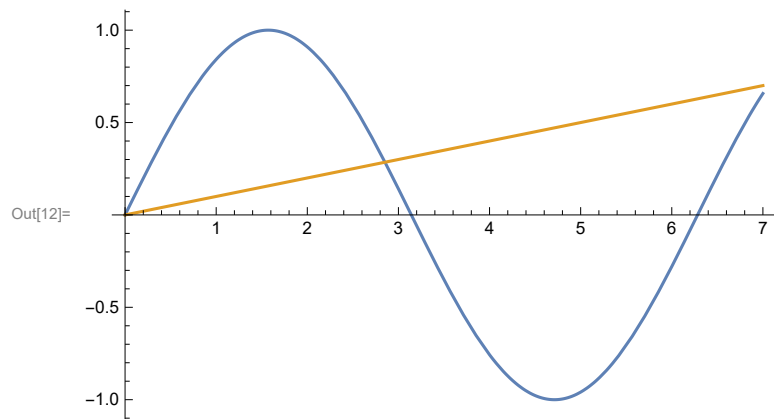
In[10]:= **Plot**[**Sin**[x], {x, 0, 7}]



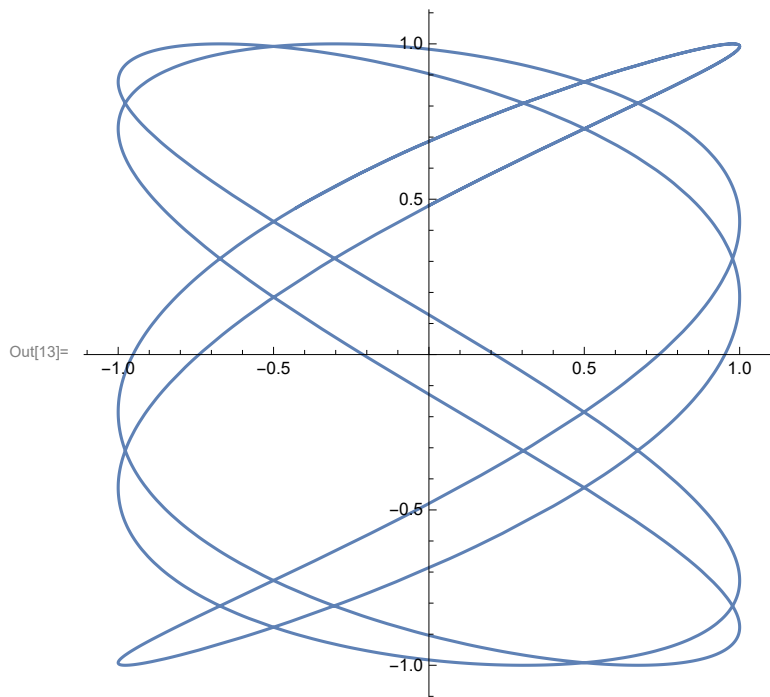
In[11]:= **Plot**[**Sin**[x], {x, 0, 7}] /. **Line** → **Point**



In[12]:= **Plot**[{**Sin**[x], x/10}, {x, 0, 7}]

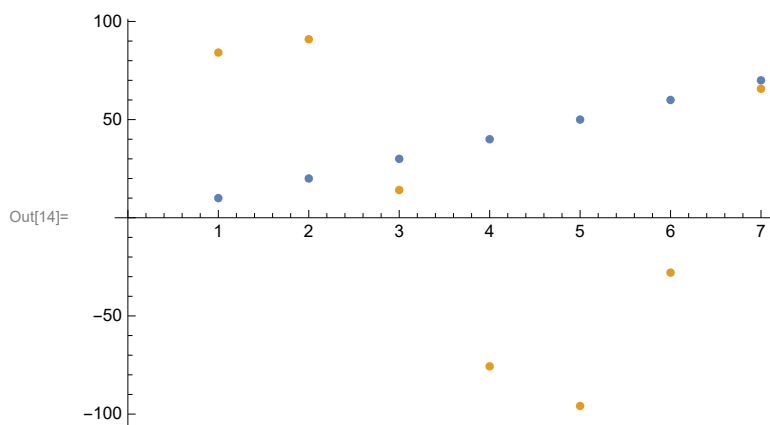


In[13]:= `ParametricPlot[{Sin[5 t], Sin[3 t + .5]}, {t, 0, 7}]`



Plot []
 ListPlot []
 ParametricPlot []
 ContourPlot []
 LogLogPlot []
 PolarPlot []
 ...
 Plot3D []
 ...

In[14]:= **%4**



Задача

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In[15]:= x0 = 0; y0 = 0; v0x = 1; v0y = .3;
Animate[
  ParametricPlot[{TriangleWave[x0 + v0x t / 4], TriangleWave[y0 + v0y t / 4]},
    {t, 0, T}, PlotRange -> {{-1, 1}, {-1, 1}}]
,
  {T,
    1,
    10}]

```

