Задание переменных и функций :

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

Применение функции :

```
F@x              ( ⇔ F[x] )
x // F           ( ⇔ F[x] )
F @@ {x, y, z}   ( ⇔ F[x, y, z] )
F /@ {x, y, z}   ( ⇔ {F[x], F[y], F[z]} )
```

Анонимные функции :

```
#^2 &    ( ⇔ F[x_] := x^2 )
```

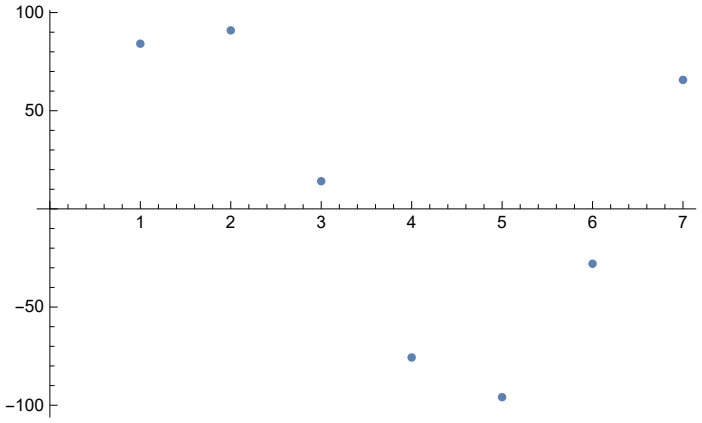
Графики

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]
```

Out[2]=

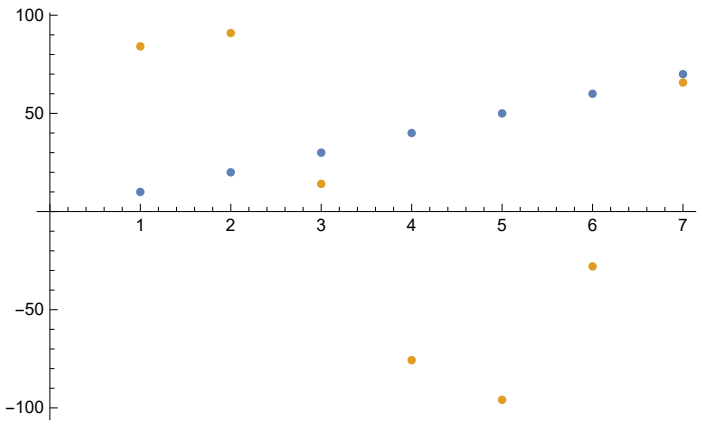


In[3]:=
```
xs = 10 Range[7]
```

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

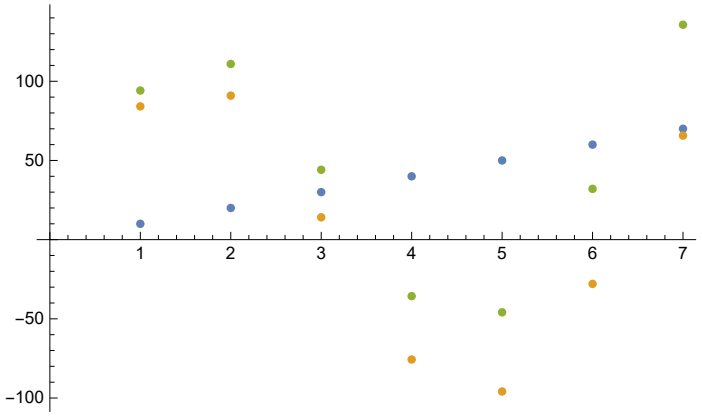
In[4]:=
```
ListPlot[{xs, tab}]
```

Out[4]=



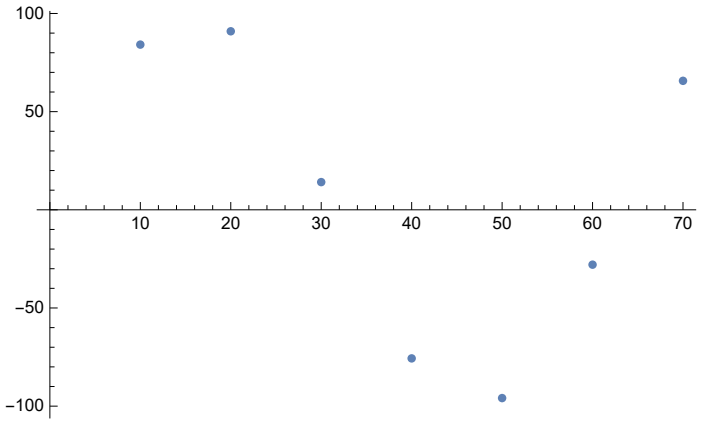
In[5]:=
```
ListPlot[{xs, tab, xs + tab}]
```

Out[5]=



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

Out[6]=



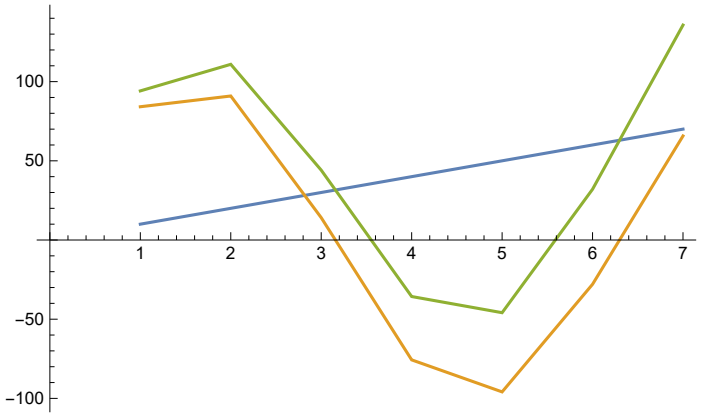
In[7]:=
```
{xs, tab}
{xs, tab}^T
```

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]}}
```

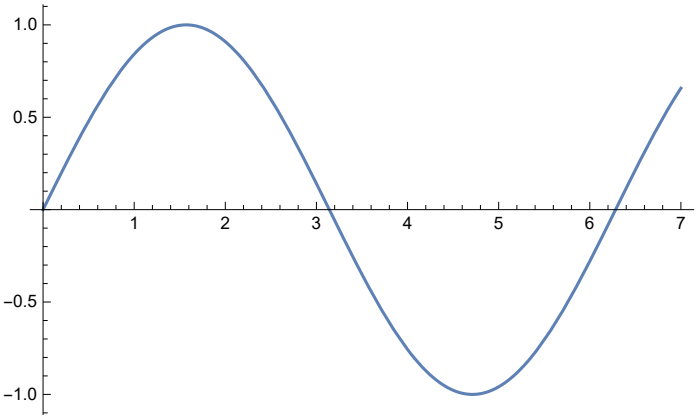
In[9]:=
```
ListLinePlot[{xs, tab, xs + tab}]
```

Out[9]=



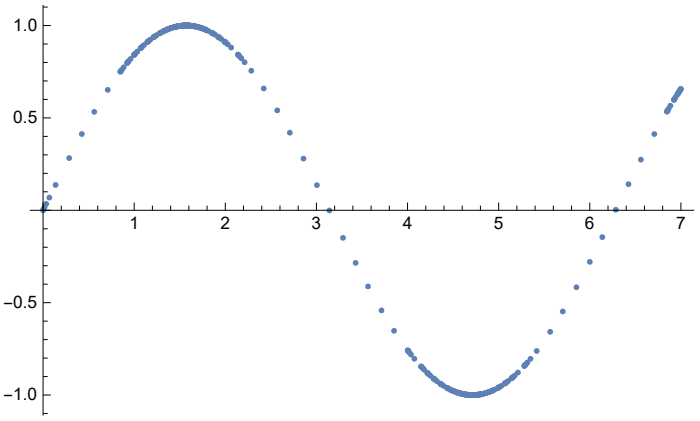
In[10]:=
```
Plot[Sin[x], {x, 0, 7}]
```

Out[10]=



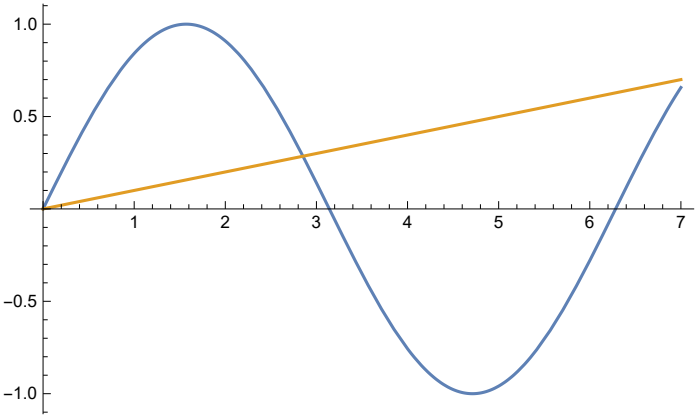
In[11]:=
```
Plot[Sin[x], {x, 0, 7}] /. Line → Point
```

Out[11]=



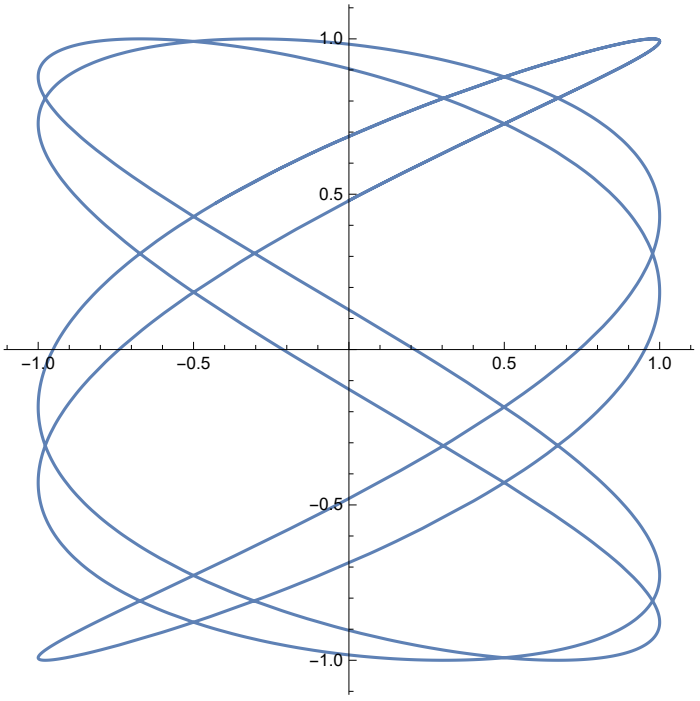
In[12]:=
```
Plot[{Sin[x], x/10}, {x, 0, 7}]
```

Out[12]=



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

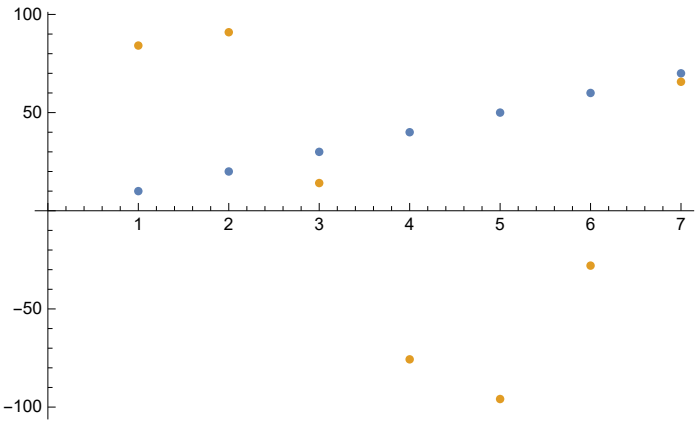
Out[13]=




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

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

Out[14]=



Задача

```
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}]
```