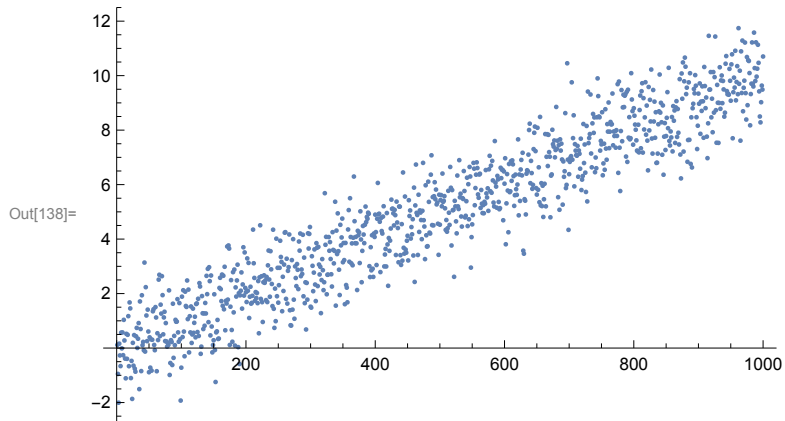


```
In[136]:= x = Table[i, {i, 1000}];
```

```
In[137]:= y = Table[i / 100 + RandomReal[NormalDistribution[]], {i, 1000}];
```

```
In[138]:= p1 = ListPlot[{x, y} // Transpose]
```

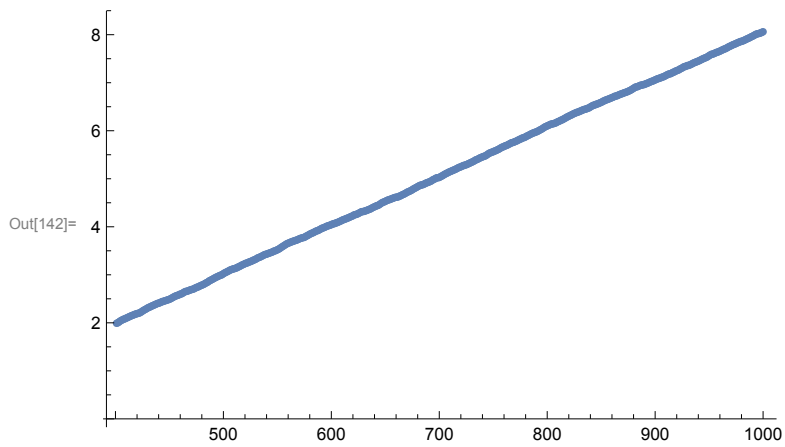


```
In[139]:= period = 400;
```

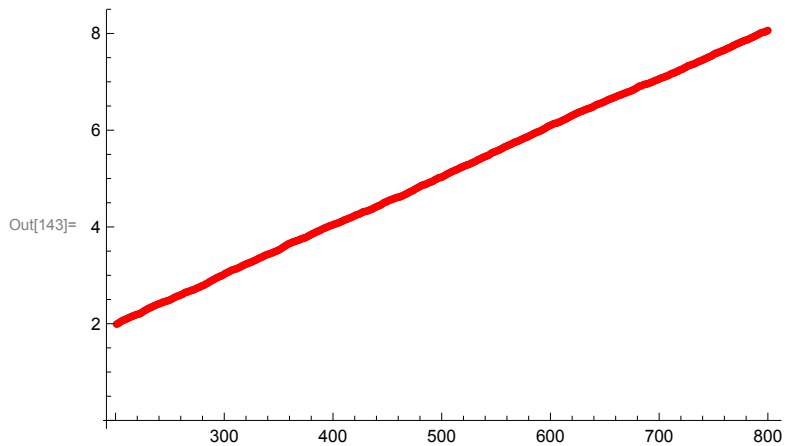
```
SMA = Table[Sum[y[[j]] / period, {j, i - period, i}], {i, period + 1, 1000}];
```

```
SMAx = Table[i, {i, period + 1, 1000}];
```

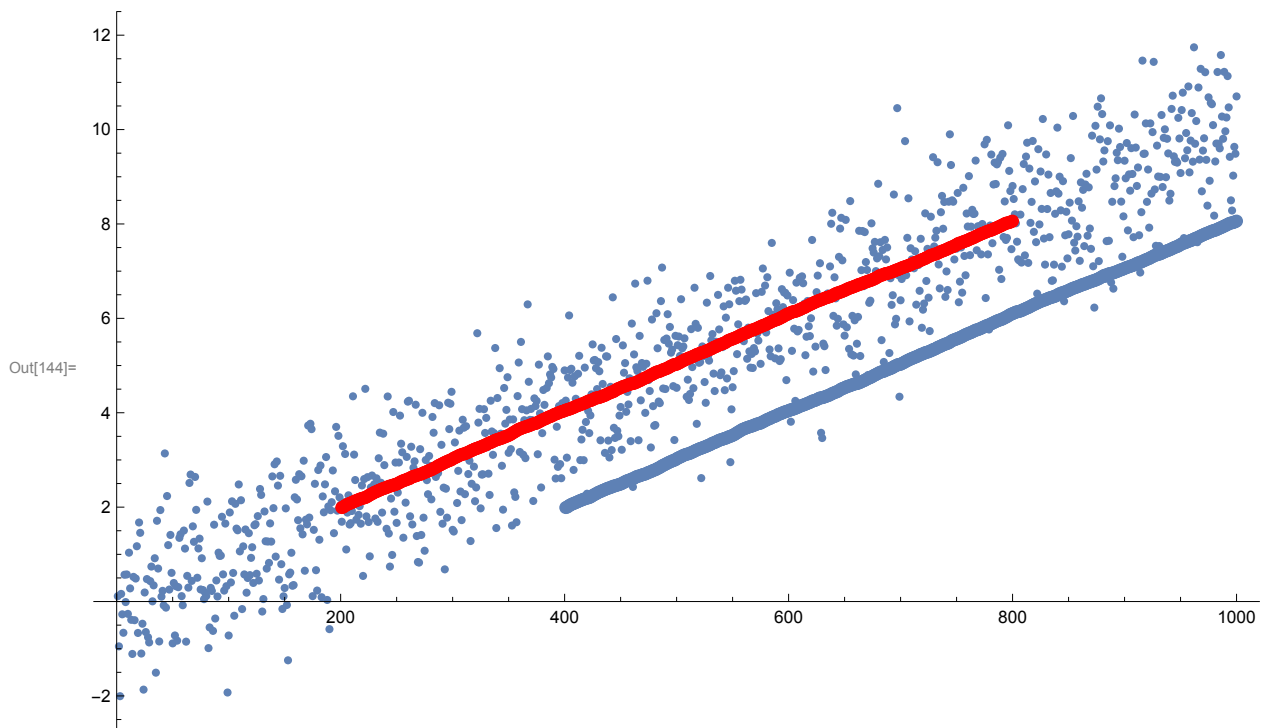
```
In[142]:= p2 = ListPlot[{SMAx, SMA} // Transpose]
```



```
In[143]:= p3 = ListPlot[{SMAx - period / 2, SMA} // Transpose, PlotStyle -> Red]
```



```
In[144]:= Show[p1, p2, p3]
```



```
In[145]:= shifted = {SMAx - period / 2, SMA};
```

```
In[146]:= data1 = (Take[y, {201, 800}] - SMA) ^ 2;
```

```
In[147]:= data2 = (Take[y, {401, 1000}] - SMA) ^ 2;
```

```
In[150]:= sigmashifted = Sqrt[Sum[data1[[i]] / 600, {i, 600}]]
```

Out[150]= 0.974224

```
In[151]:= sigmanonshifted = Sqrt[Sum[data2[[i]] / 600, {i, 600}]]
```

Out[151]= 2.22918

```
In[152]:= sigmanonshifted / sigmashifted
```

```
Out[152]= 2.28815
```