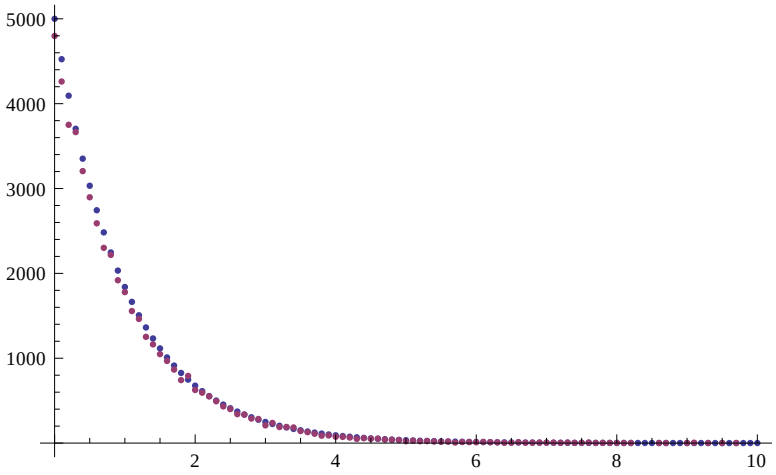
```
d = 10; n = 10; nu = 50 000; ListPlot[{Table[{i / n, Exp[-i / n] * nu / n}, {i, 0, d n}],
  Tally[Floor[-Log[1 - RandomReal[{0, 1}, nu]] * n] / n]}, PlotRange → All]
```

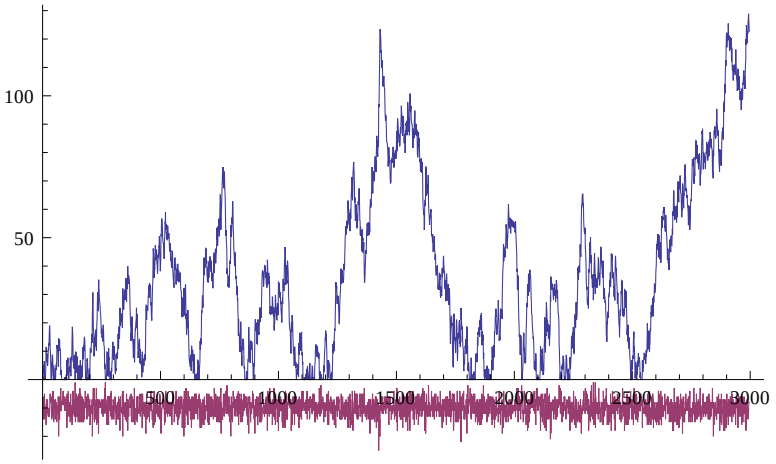



```
Integrate[Exp[-i / n], {i, g, g + 1}]
```

$$10\left(-1+e^{1/10}\right)e^{\frac{1}{10}(-1-g)}$$

```
a = 1.01; n = 10; nu = 30 000; U = {}; k = 0; j = 0; G = {}; l = 0; K = 0;
For[i = 1, i < nu + 1, i++,
  k += -Log[1 - RandomReal[]];
  If[k > n,
   AppendTo[U, i - j];
   l += i - j - a * n;
   If[l < 0, l = 0];
   AppendTo[G, l]; j = i; k -= n; K += n;];
 ];
Sum[U[[i]], {i, Length[U]}] / (K + k)
ListPlot[{G, -U}, Joined → True]
```

```
1.0011
```



U

```
{{10.5679}, {10.1759}, {11.1134}, {10.7609},
 {10.5567}, {10.8535}, {12.6308}, {10.0643}, {11.2366}, {10.7492}}
```