

```

In[7]:= << Graphics`Graphics`

In[6]:= << Statistics`DataManipulation`

In[8]:= SetDirectory["/Users/takasu/home/Granada/
数值計算一般/乱数発生/Random_Mersenne-Twister/build/Development/"]

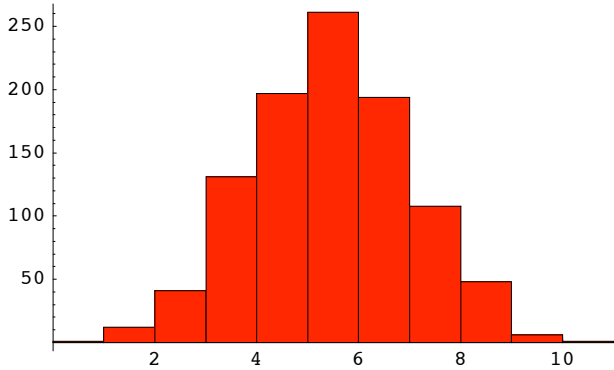
Out[8]= /Users/takasu/home/Granada/数值計算一般/
乱数発生/Random_Mersenne-Twister/build/Development

In[9]:= results = ReadList["data-binomial", Real];
Length[results]

Out[10]= 1000

In[11]:= gSimHisto = Histogram[results, HistogramCategories -> 10, HistogramRange -> {0, 10}]

```



```

Out[11]= - Graphics -

In[12]:= freq = Frequencies[results]

Out[12]= {{1, 0.}, {12, 1.}, {41, 2.}, {131, 3.}, {197, 4.},
{261, 5.}, {194, 6.}, {108, 7.}, {48, 8.}, {6, 9.}, {1, 10.}}

In[13]:= prob[i_, n_] := n! / i! / (n - i)! / 2^n

In[14]:= prob[2, 10]

Out[14]= 45 / 1024

In[15]:= numHead = Table[i, {i, 0, 10}]

Out[15]= {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

In[16]:= probSeq = Map[prob[#, 10] &, numHead]

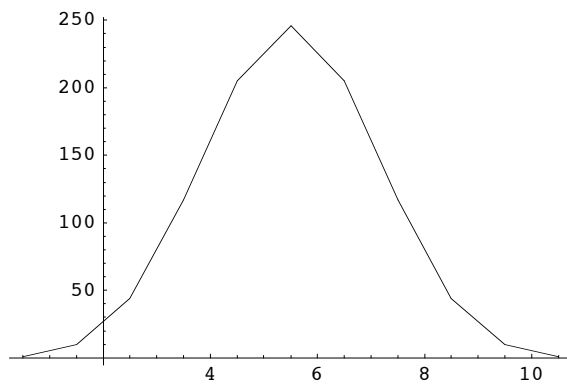
Out[16]= {1 / 1024, 5 / 512, 45 / 1024, 15 / 128, 105 / 512, 63 / 256, 105 / 512, 15 / 128, 45 / 1024, 5 / 512, 1 / 1024}

In[17]:= points = Transpose[{numHead + 0.5, 1000 probSeq}]

Out[17]= {{0.5, 125 / 128}, {1.5, 625 / 64}, {2.5, 5625 / 128}, {3.5, 1875 / 16}, {4.5, 13125 / 64}, {5.5, 7875 / 32},
{6.5, 13125 / 64}, {7.5, 1875 / 16}, {8.5, 5625 / 128}, {9.5, 625 / 64}, {10.5, 125 / 128}}

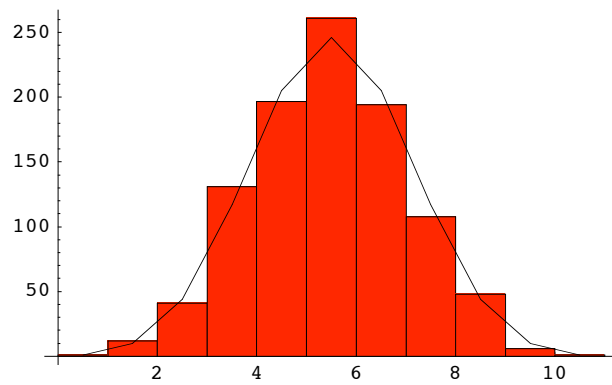
```

```
In[18]:= gSol = ListPlot[points, PlotJoined → True]
```



```
Out[18]= - Graphics -
```

```
In[19]:= Show[gSimHisto, gSol, PlotRange → All]
```



```
Out[19]= - Graphics -
```