```
u16807[iseed_] := Mod[(iseed) * 16 807, 2 147 483 647];
dice[u_] := If[u ≤ 1/6, 1,
   If[u > 1/6 && u ≤ 2/6, 2,
    If[u > 2/6 && u ≤ 3/6, 3,
     If[u > 3/6 && u ≤ 4/6, 4,
      If[u > 4/6 && u ≤ 5/6, 5,
       If[u > 5/6 && u ≤ 6/6, 6]]]]]];
a = Table[Histogram[Table[
     iseed1 = u16807[iseed1];
     iseed2 = u16807[iseed2];
     iseed3 = u16807[iseed3];
     dice[iseed1 / 2 147 483 647] + dice[iseed2 / 2 147 483 647] + dice[iseed3 / 2 147 483 647],
     {n, 1, 10^t}], {1}, ImageSize → 700, ChartStyle → "Pastel",
    PlotLabel → Style[StringJoin["Distribution for ", ToString[10^t], " iterations"],
      Lighter[Blue], 20]], {t, 1, 6}];
Export["Dice.gif", a, "DisplayDurations" → 1.2]
```

Dice.gif

```
iseed1 = 1;
iseed2 = 1.5;
iseed3 = 2.15;
u16807[iseed_] := Mod[(iseed) * 16 807, 2 147 483 647];
;
a = Table[Histogram[Table[
     iseed1 = u16807[iseed1];
     iseed2 = u16807[iseed2];
     dice[iseed1 / 2 147 483 647] + dice[iseed2 / 2 147 483 647], {n, 1, 10^t}], ImageSize → 700,
    ChartStyle → "Pastel", PlotLabel → Style[StringJoin["Distribution for ",
       ToString[10^t], " iterations"], Lighter[Blue], 20]], {t, 1, 6}];
Export["Dice_2.gif", a, "DisplayDurations" → 1.2]
```

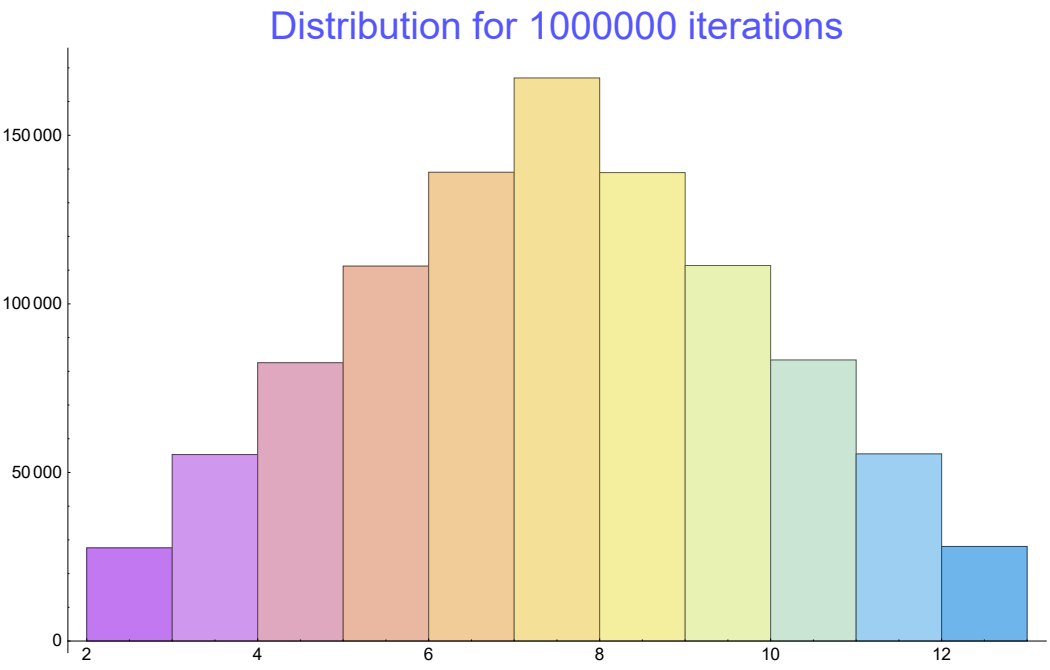
Dice_2.gif

```
Histogram[Table[
  dice[RandomReal[]] + dice[RandomReal[]], {n, 1, 1 000 000}],
 ImageSize → 700, ChartStyle → "Pastel", PlotLabel →
  Style[StringJoin["Distribution for ", ToString[10^t], " iterations"], Lighter[Blue], 20]]
```

```
dice[u_] := If[u ≤ 1/6, 1,
   If[u > 1/6 && u ≤ 2/6, 2,
    If[u > 2/6 && u ≤ 3/6, 3,
     If[u > 3/6 && u ≤ 4/6, 4,
      If[u > 4/6 && u ≤ 5/6, 5,
       If[u > 5/6 && u ≤ 6/6, 6]]]]]];
```

In[12]:=
```
a = Histogram[Table[
    dice[RandomReal[]] + dice[RandomReal[]], {n, 1, 1000000}],
  ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
     "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]]
Export["DICE_2.png", a, ImageSize → 700]
```

Out[12]=



Out[13]= DICE_2.png

In[38]:=
```
no = 1; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[39]= {DICE_01_size700.png, DICE_01_size2000.png}

In[36]:=
```
no = 2; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[37]= {DICE_02_size700.png, DICE_02_size2000.png}

In[26]:=
```
no = 3; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[27]= {DICE_03_size700.png, DICE_03_size2000.png}

```
no = 4; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[29]= {DICE_04_size700.png, DICE_04_size2000.png}

```
no = 5; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[31]= {DICE_05_size700.png, DICE_05_size2000.png}

```
no = 6; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[33]= {DICE_06_size700.png, DICE_06_size2000.png}

```
no = 7; siz = {700, 2000};
Table[
 a = Histogram[Table[Total[Table[dice[RandomReal[]], {n, 1, no, 1}]], {n, 1, 1000000}],
   ImageSize → 700, ChartStyle → "Pastel", PlotLabel → Style[StringJoin[
      "Distribution for ", ToString[1000000], " iterations"], Lighter[Blue], 20]];
 Export[StringJoin["DICE_0", ToString[no], "_size", ToString[siz[[r]]], ".png"],
  a, ImageSize → siz[[r]]], {r, 1, 2}]
```

Out[35]= {DICE_07_size700.png, DICE_07_size2000.png}