*probability*: probability is the measure of the likelihood of a random phenomenon or chance behavior occurring.

**Coin Flips**:

1. \{H, T\}

2. \{HH, HT, TH, TT\}

3. \{HHH, HHT, HTH, THH, TTT, THT, TTH, HTT\}

Sample space \{1, 2, 3, 4, 5, 6\}

Individual outcome.
$E = \sqrt{2.416}$

execute experiment

$E = 2$
$E = 4$
$E = 6$

<table>
<thead>
<tr>
<th>Ex.</th>
<th>Color</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brown</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>Yellow</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>Blue</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Orange</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Empirical method
Classical method see the attached file in Blackboard.

$E^0 = $ Heads
$H, T, T$

$p(E) = \frac{1}{3} = 0.333$

$= 33\%$