# M&M colour comparison

## Step 1

Open your bag of M&M’s. DO NOT EAT THEM and DO NOT TIP THEM OUT. Select a random M&M and record its colour in the table below. Put it back in, shake it up and select another. Do this 25 times.

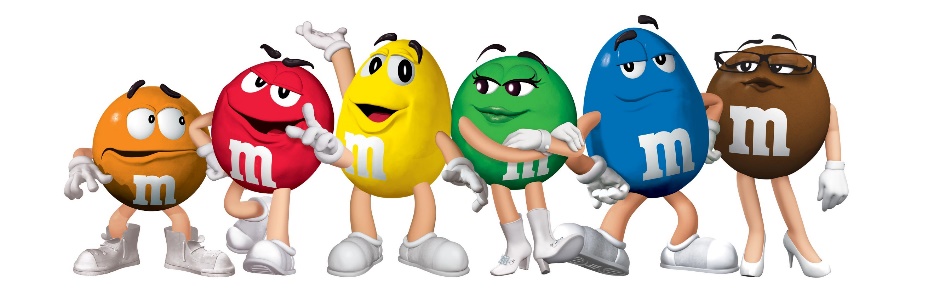
This will be our Experimental Probability.

|  |  |  |
| --- | --- | --- |
| Colour | Tally | Total |
| Red |  |  |
| Yellow |  |  |
| Orange |  |  |
| Blue |  |  |
| Green |  |  |
| Brown |  |  |

**Step 2**

Calculate the experimental probability.

|  |  |  |
| --- | --- | --- |
| Colour | Experimental Probability | Convert to Decimal |
| Red | /25 |  |
| Yellow | /25 |  |
| Orange | /25 |  |
| Blue | /25 |  |
| Green | /25 |  |
| Brown | /25 |  |

**Step 3**

What was the most likely colour to choose?

In a bag of 100 M&M’s how many of each colour would you expect?

|  |  |  |  |
| --- | --- | --- | --- |
| Colour | Number | Colour | Number |
| Red |  | **Blue** |  |
| Yellow |  | **Green** |  |
| Orange |  | **Brown** |  |

**Step 4**

Use your experimental probability to see how close you were.

Count how many M&M’s are in your bag: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (this will be the bottom of your probability fraction)

Sort them by colour and count them.

|  |  |  |  |
| --- | --- | --- | --- |
| Colour | Total | Probability (Fraction) | Probability (Decimal) |
| Red |  |  |  |
| Yellow |  |  |  |
| Orange |  |  |  |
| Blue |  |  |  |
| Green |  |  |  |
| Brown |  |  |  |

**Step 5**

If each colour is *equally likely* to be made from the factory, what is the probability of choosing each colour at random?

|  |  |
| --- | --- |
| Colour | Probability |
| Red |  |
| Yellow |  |
| Orange |  |
| Blue |  |
| Green |  |
| Brown |  |