$\qquad$

According to the $M \& M$ website, the color distributions of a 1.69 oz. bag of regular $M \& M s$ is Blue ( $24 \%$ ), Brown (13\%), Green (16\%), Orange (20\%), Red (13\%) and Yellow (14\%). The distribution of the candies follows a normal distribution. The average number of candies in an individual pack of regular M\&Ms is 57 pieces. Using this information calculate out following values for each color M\&M.

|  | Mean $(\mu)$ | Variance $\left(\sigma^{2}\right)$ | St. Dev. $(\sigma)$ |
| :--- | :--- | :--- | :--- |
| Blue |  |  |  |
| Brown |  |  |  |
| Green |  |  |  |
| Orange |  |  |  |
| Red |  |  |  |
| Yellow |  |  |  |

Using the normal distribution, calculate out an appropriate interval for each probability.

|  |  |  |
| :---: | :---: | :---: |
| Blue |  | $95 \%$ |
| Brown |  |  |
| Green |  |  |
| Orange |  |  |
| Red |  |  |
| Yellow |  |  |

