**How my algorithms work for generating with math:**

* **Warm/Cool colors:**
  1. Creates an empty list.
  2. While that list is less than 6 entries long:
     1. Randomly generate a color that fits within the appropriate range (stronger reds for warm, stronger blues for cold)
     2. Check to see if that color is already in the list.
        + If so, discard it and try again.
        + If not, add it to the list and increase length by one.
  3. Once the list has 6 unique entries, return it.
* **Monochrome:**
  1. Create a list where the first entry is the color the user entered in
  2. While list is less than 6 items in length:
     1. Random a Saturation value between 0 and 1.
     2. Random a lightness value between 0 and 1.
     3. Convert to RGB with colormap
     4. Check to see if that color is already in the list.
        + If so, discard it and try again.
        + If not, add it to the list and increase length by one.
  3. Return the list with 6 colors in it
* **All other patterns:**

1. Create a list where the first entry is the color the user entered in
2. Create a starting point. This is equal to the distance between hues that should be kept in order to accurately create the color pattern.
3. Create an end point. This is the total distance around the color wheel the pattern should travel.
4. While the start index is less than the end point:
   * add the start index to the starting hue.
   * convert the algorithm to RGB by dividing H by 360 and passing it though colormap.
   * add the RGB color to the list to be returned.
   * increase the start index by its original amount.
5. Pass the list to the additionalColors function.
6. While the list is less than six items in length:
   * Randomly pick a color from the list.
   * Randomly pick a hue modified from the list of 15,30,45,60
   * Use colormap to convert to rgb
   * Check to see if that color is already in the list.
     + 1. If so, discard it and try again.
       2. If not, add it to the list and increase length by one.
7. Return the list of length 6.