



# Ślepota barw

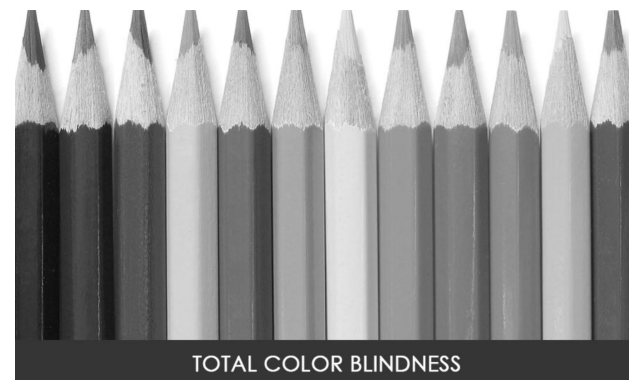
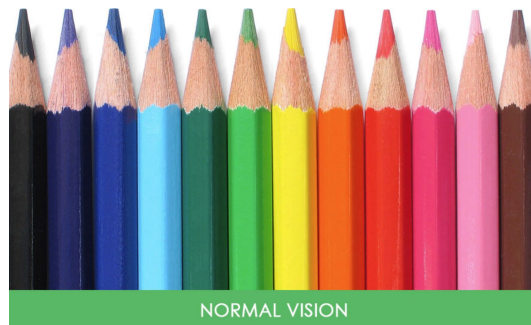
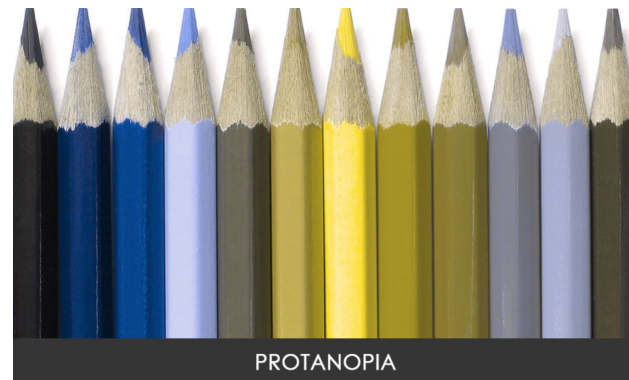
Magdalena Baracz  
Aleksandra Hernik  
Anna Niżnik



# Plan

1. Co to jest ślepotą barw?
2. Rady dla twórców wykresów
3. Przydatne narzędzia

# Rodzaje zaburzeń widzenia kolorów



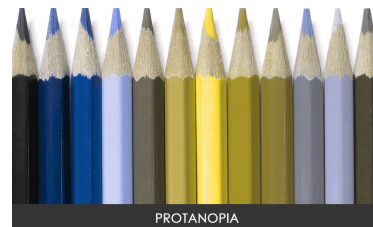
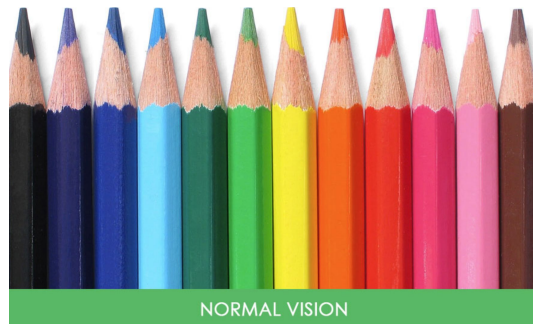
# Rodzaje zaburzeń widzenia kolorów



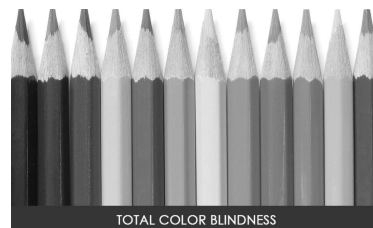
4.63%  0.36% 



   
0.0001%



1% 



   
0.00003%



NORMAL VISION



DEUTERANOMALY



PROTANOPIA



TRITANOPIA







NORMAL VISION



DEUTERANOMALY

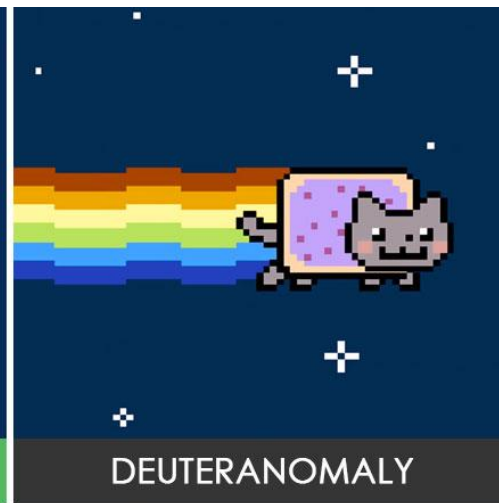
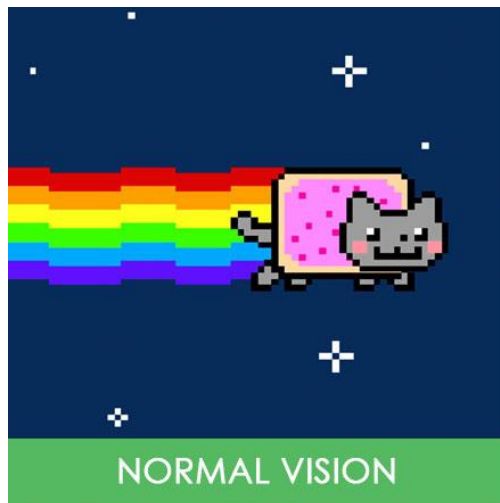


PROTANOPIA

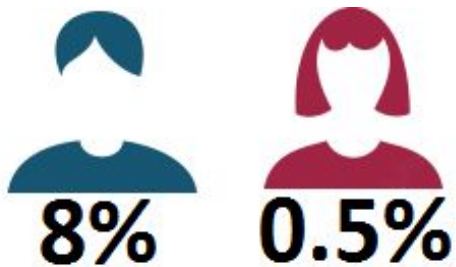
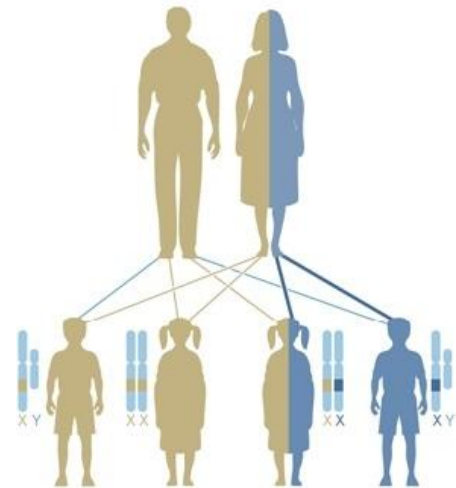


TRITANOPIA

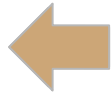
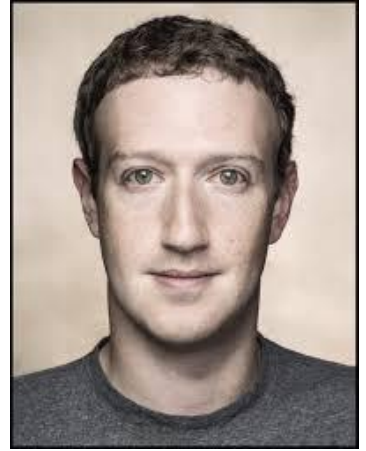
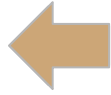




# Częstotliwość występowania

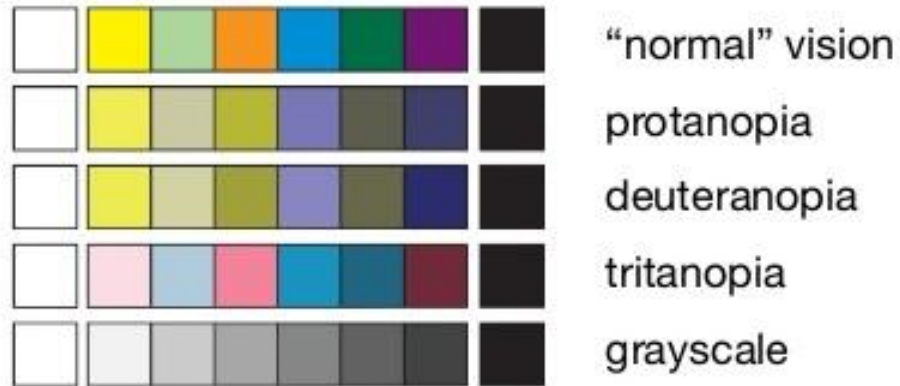




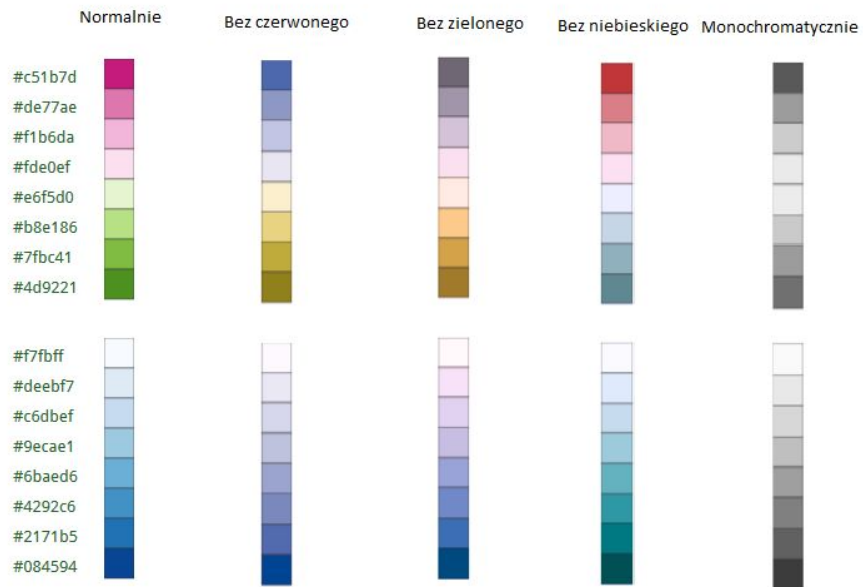


John Dalton

# Palety jakościowe

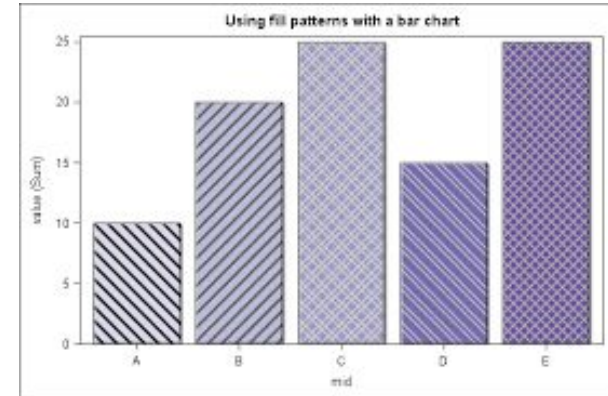
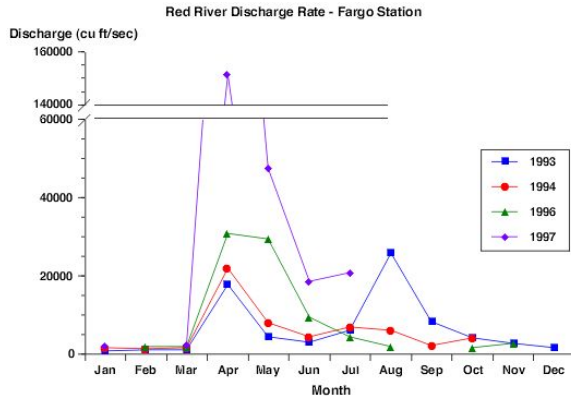


# Palety ilościowe



# Dostosowanie grafik

- Zrezygnowanie z koloru
- Możliwość przestawienia kolorów na "przyjazne"
- Podwójne kodowanie cechy
- Używanie tekstur



# Aplikacje mobilne symulujące ślepotę barw

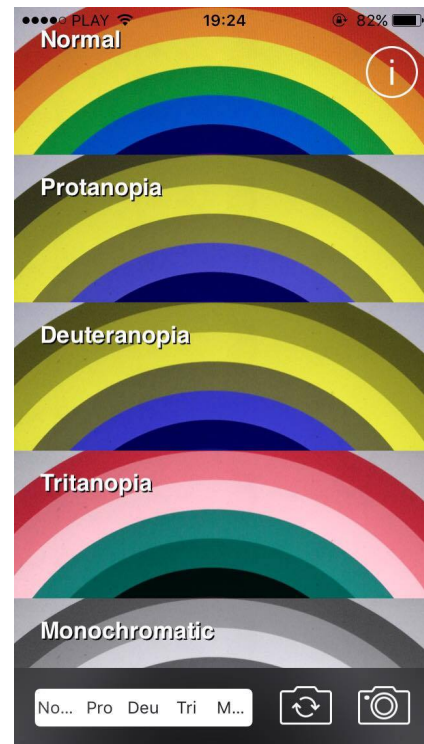
## Przykładowe aplikacje:

### Android:

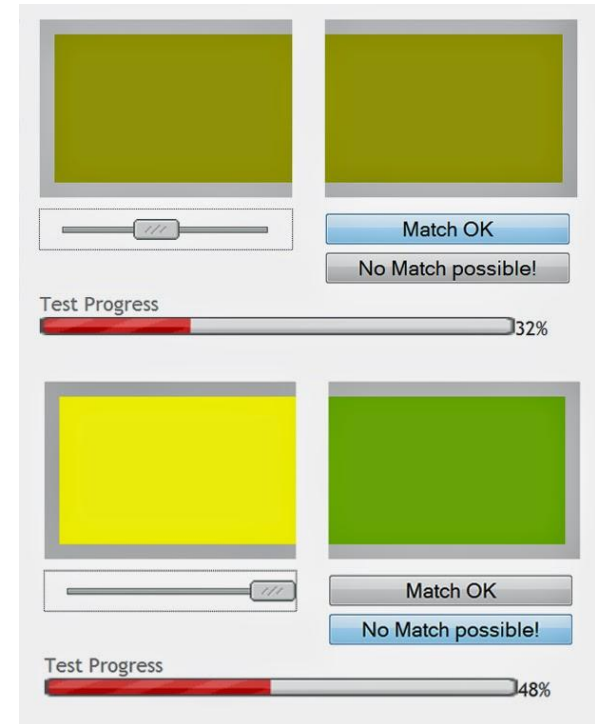
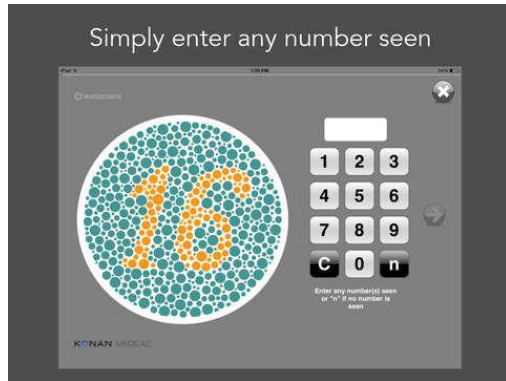
- CVSimulator
- Colorblind Vision

### iOS:

- CVSimulator
- Colorblind Goggles



# Narzędzia do testowania



- RGB Anomaloscope
- F - M 100 Hue Test
- Color Arrangement Test
- Ishihara 38 Plates Test



# Źródła

- <https://venngage.com/blog/color-blind-friendly-palette/>
- [https://en.wikipedia.org/wiki/Color blindness](https://en.wikipedia.org/wiki/Color_blindness)
- <http://www.color-blindness.com/rgb-anomaloscope-color-blindness-test/>
- <http://www.color-blindness.com/ishihara-38-plates-cvd-test/>
- <http://www.color-blindness.com/farnsworth-munsell-100-hue-color-vision-test/>
- <http://www.color-blindness.com/color-arrangement-test/>

Dziękujemy za uwagę