

Color Review

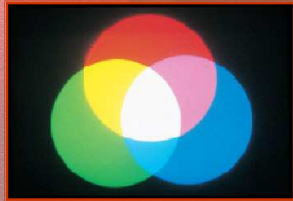
Colors of Light

- Primary Colors

- Red
- Blue
- Green

- Complimentary Colors

- Cyan (to Red)
- Yellow (to Blue)
- Magenta (to Green)



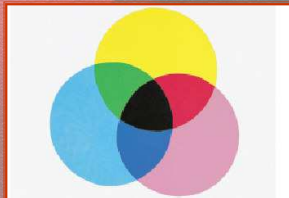
Pigment Colors

- Primary Colors

- Cyan
- Yellow
- Magenta

- Complimentary Colors

- Red (to Cyan)
- Blue (to Yellow)
- Green (to Magenta)



UV/ Black Light

- Black Lights emit UVA (315 to 400nm)
- Fluorescent paints, newly washed clothes, anything that glows under black light use phosphors to emit visible light
- Phosphors convert the UV light into a certain color of the visible spectrum

Color in Thin Films

- When we observe different colors like a bubble or oil on water, the color seen can tell us about the thickness of the film.
- Through a combination of reflection and refraction, light constructively interferes to show a certain color.
- The thickness of the film is an odd number multiple of $\frac{1}{4} \lambda$ of the color shown.
- Thickness = $\frac{1}{4} \lambda, \frac{3}{4} \lambda, \dots$



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