in light different wavelengths means different colors. Also different amplitudes means different brightness.

frequency depends on wavelength, b/c shorter wavelength travels faster.

speed of light = $c = 3.0 \cdot 10^8$ m/s

practice questions:

for light sources with equal intensities which one has the highest frequency?

A. red light
B. violet light
C. X-rays
D. radio waves

$E = h\nu$

↑

J·s

---

einsteins new model

- e^- is excited (ejected) all at once → from one photon
- if photon has too little E, nothing happens
- + all much E is ok