Constants

h= $6.63x10^{-34}$**J*s**
c=$3x10^{8}$ **m/s**

h is Planck's Constant
c is speed of light

Purpose for flame test

To identify a metal by its color

When is color emitted?

When the electron comes back to its groundstate

Harmful and little effect radiations

Gamma Rays	Long Radio waves
X rays	Microwaves
UV or UltraViolet	IR or Infrared

Formulas

C=VA (**A is lambda**)
E=hV

E is energy
V is frequency
A is lambda

How an electron emits a photon

Heat or electricity is applied to an atom, and the electron absorbs the energy and then gets excited; leaves its ground state, and comes back to its nucleus due to it being attracted, and then releases energy; Photon

Conversions

1m=$1x10^{9}$nm
1kHz=$1x10^{3}$Hz
1mHz=$1x10^{6}$Hz

mole of a photon

$(6.02x10^{23})(6.63x10^{-34})(V)$
Multiply this exactly how this is once you get your **V** and you will get your mole of a photon for the problem.