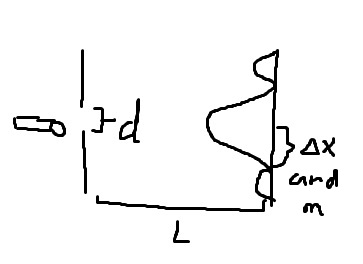


**Single and Double Slits**

**Basic Formulas:**

**Single Slit Definition of Variables:**

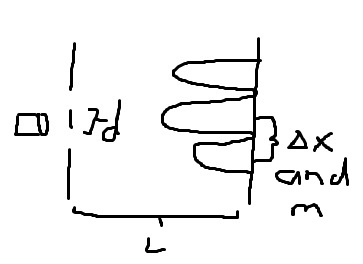
**m=order of *destructive* interference fringes (except when m=0)**

**m+1/2=order of *constructive* interference fringes**

**d=length of “hole” between two slits**

**x=distance between *minima***

**Double Slit Definition of Variables:**

**m=order of *constructive* interference fringes**

**m+1/2=order of *destructive* interference fringes**

**d=length of “slit” between two slits**

**x= distance between maxima**

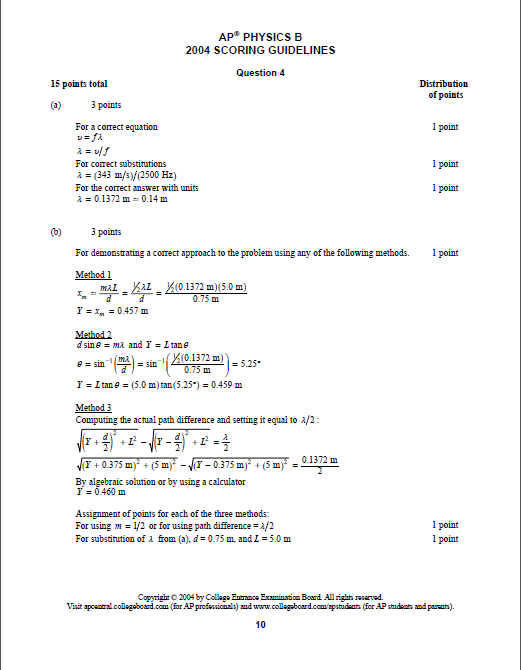
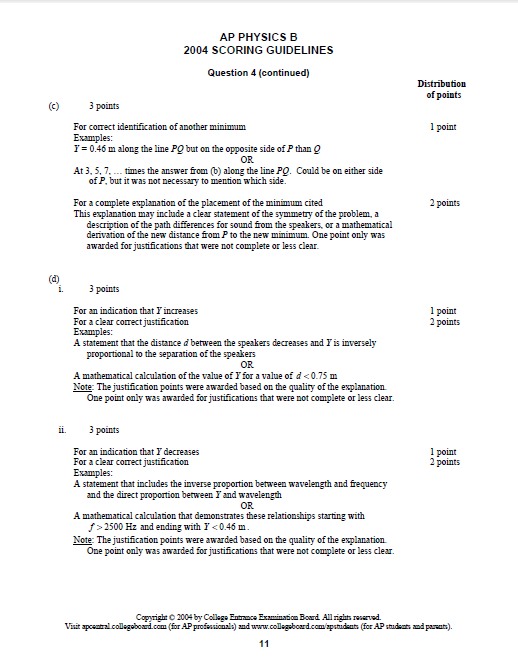
**\*L and λ are the same for both:**

**L=distance between slits and screen**

**λ=wavelength of light**

**Lab-Like Questions Tips:**

1. **Stopwatch most likely isn’t needed**
2. **Remember to say “shine the laser through the slit” to gain full points.**
3. **Drawings of setup should look similar to the ones above, with corresponding labels.**

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