34. Solution A has a peak around 410nm, which is violet. If it absorbs violet, then the apparent color will be yellow. Solution B has a peak around 490nm, which is blue. If it absorbs blue, then the apparent color will be orange. Solution C has a peak around 590nm, which is yellow. Thus the apparent color will be violet. Solution D has a peak around 720nm, which is red, but has a very broad left shoulder, so the apparent color will be blueshifted from bluegreen to blue.
39. a) We can rearrange Beer's Law from $A_\lambda = \varepsilon_\lambda cl$ to $c = \frac{A_\lambda}{\varepsilon_\lambda l}$. Substituting in values from the problem yields $\frac{0.427}{6.130\ \mathrm{M^{-1}cm^{-1}} \times 1.000\ \mathrm{cm}} = 6.97 \times 10^{-5}\ \mathrm{M}$.
    b) $c \times \frac{1.00\ \mathrm{mL}}{10.00\ \mathrm{mL}} = 6.97 \times 10^{-5}\ \mathrm{M} \Rightarrow c = 6.97 \times 10^{-4}\ \mathrm{M}$
    c) $6.97 \times 10^{-4}\ \mathrm{M} * 5\ \mathrm{mL} \times \frac{1\ \mathrm{L}}{1000\ \mathrm{mL}} \times 292.16\ \mathrm{g/mol} \times \frac{1000\ \mathrm{mg}}{1\ \mathrm{g}} = 1.02\ \mathrm{mg}$
42. –
50. a) Light at 430 nm is violet-blue.
    b) Light at 600 nm is orange
    c) A substance absorbing violet-blue light will appear yellow
    d) A substance absorbing orange light will appear blue
    e)