Rec. DNA Tech.

## Molecular Problems

1. Convert a $100 \mathrm{mg} / \mathrm{ml}$ solution to the following units:
a. $\mu \mathrm{g} / \mathrm{ml}$
b. $\mu \mathrm{g} / \mu \mathrm{l}$
2. You need a concentration of genomic DNA to be $50 \mathrm{ng} / \mu \mathrm{l}$ in a total volume of $200 \mu \mathrm{l}$, but your stock is at a concentration of $192.4 \mathrm{ng} / \mu \mathrm{l}$ how would you dilute this to the proper concentration?
3. What volume of a $25 \mu \mathrm{M}$ solution of MgCl would contain 5 pmol of MgCl ?
