Summary for Test 4

- Multipole Expansion:
  - * determine $\vec{p}$, V_{mono}, V_{dip}
  - * NOT: derivation of $\vec{E}_{dip}$ (HW 18.1)
- Determine * $\vec{E}_{dip}$ (general & special case) ($\vec{E}$ due to dipole)
  - * $\vec{N}$, $\vec{F}$ on dipole (& $\vec{F}$ on charge)
  - & combinations
- σ_b, ρ_b & Gauss's Law
- Dielectric:
  - * determine & draw $\vec{D}$, $\vec{P}$, $\vec{E}$ for general & for linear dielectric
  - includes using Gauss's Law for $\vec{D}$ & $\vec{E}$
  - * $C = \frac{Q}{\Delta V}$ $\Delta V = -\int_{-}^{+} \vec{E} \cdot d\vec{l}$
- NOT: Boundary Conditions & Separation of Variables