

SYEN1310. Homework #5. Units
Assigned: 9/19/12, Due: 9/26/12

1. Write the viscosity $\mu = 0.01 \text{ Pa}\cdot\text{s}$ using newtons rather than pascals. Write the viscosity using only base units.
2. Write the heat flux density $35 \text{ W}/\text{m}^2$ with units including joules. Write the heat flux using only base units.
3. Write the permeability $0.5 \text{ H}/\text{m}$ using volts. Write the permeability using only base units.
4. Write the permittivity $5 \times 10^{-5} \text{ F}/\text{m}$ using only base units. Use the appropriate prefix to eliminate the negative exponent.
5. Write the electric charge density $3 \times 10^{-4} \text{ C}/\text{m}^3$ using only base units and using the appropriate prefix to eliminate the negative exponent.
6. Write $525 \text{ kN}/\text{s}$ in base units and using an exponent without any prefix.