Session #28: Homework Problems

**Problem #1**

Poly (vinyl chloride) is represented by the formula \[ \text{H} - \text{C} - \text{C} - \text{Cl} \]

Draw molecular structures for tetramers \((n=4)\) of the atactic, isotactic, and syndiotactic forms of PVC.

**Problem #2**

(a) Polyethylene exists either as a linear (straight-chain) polymer or as a branched polymer. Which is the high-density form? Explain.

(b) In visible light high-density polyethylene (HDPE) is opaque (white) while low-density polyethylene (LDPE) is transparent. Explain.

(c) Which form of PE is mechanically more flexible? Explain.

(d) Which form of PE has the higher melting point?