

HW #3

$$1.) \frac{12}{C.} \cdot \frac{11}{C.C.} \cdot \frac{10}{R.} = 1320 \quad \text{or}$$

$$P(12,3) = 1320$$

$$2.) 6M, 10W, \text{ choose } 7$$

$$a.) C(16,7) = 11,440$$

$$b.) C(10,7) = 120$$

$$c.) \frac{C(6,5)}{M} \cdot \frac{C(10,2)}{W} = (6)(45) = 270$$

$$d.) i.) T, J \text{ need 5 more, so}$$

$$C(16-2,5) = C(14,5) = 2002$$

$$ii.) \text{ No } T, J \text{ so}$$

$$C(16-2,7) = C(14,7) = 3432$$

$$iii.) (T, \text{not } J) \text{ or } (J, \text{not } T) \text{ or } (\text{neither } T \text{ nor } J);$$
$$(T+6) \text{ or } (J+6) \text{ or } (\text{no } T, \text{no } J + 7):$$

$$C(14,6) + C(14,6) + C(14,7)$$

$$= 3003 + 3003 + 3432 = 9438$$

$$\textcircled{\text{OK}} \text{ ALL - Part i.)} = 11,440 - 2002 = 9438$$