

3.39  
72

$$\text{I} \quad C_5^2 C_{15}^3 = 10 \cdot \frac{15 \cdot 14 \cdot 13}{6} = 4550$$

$$\text{II} \quad C_5^2 C_{15}^3 + C_5^3 C_{15}^2 = 4550 + 105 = 4655$$

$\downarrow$                        $\downarrow$   
prime 2                  prime 2

$$\text{III} \quad C_5^2 C_{15}^3 + C_5^1 C_{15}^4 + C_5^0 C_{15}^5 =$$
$$4550 + 6825 + 3003 = 14378$$