1. $C_{100}^{85} \cdot 0.8^{85} \cdot 0.2^{15} = 0.048$

2. $P_0 = \dfrac{2^0}{0!} e^{-2} = 0.1353$

   $P_2 = \dfrac{2^2}{2!} e^{-2} = 0.2707$

3. $C_{144}^{70} \cdot 0.5^{70} \cdot 0.5^{74} = 0.0681$

4. $\dfrac{7}{10} \cdot \dfrac{6}{9} \cdot \dfrac{9}{11} \cdot \dfrac{8}{10} = 0.3054$

   $\dfrac{7}{10} \cdot \dfrac{6}{9} \cdot \dfrac{2}{11} \cdot \dfrac{1}{10} + \dfrac{3}{10} \cdot \dfrac{2}{9} \cdot \dfrac{9}{11} \cdot \dfrac{8}{10} + \left(\dfrac{7}{10} \cdot \dfrac{3}{9} + \dfrac{3}{10} \cdot \dfrac{7}{9} \right) \cdot$

   $\left(\dfrac{9}{11} \cdot \dfrac{2}{10} + \dfrac{2}{11} \cdot \dfrac{9}{10} \right) = 0.2048$

   $1 - \dfrac{3}{10} \cdot \dfrac{2}{9} \cdot \dfrac{3}{11} \cdot \dfrac{1}{10} = 0.9978$