

## XII. Probability:

D. Problem #4: okay smarty pants...try two traits:

TT, Tt = tongue rolling      tt = NTR

EE, Ee = free earlobes      ee = attached

$$\begin{array}{c}
 \text{Ttee X ttEe} \\
 T+Ee = \left[ \begin{array}{c} \frac{1}{2} \times \frac{2}{2} + \cancel{0} \\ \text{T}^{1\text{st}} \text{ AND } t^{2\text{nd}} \text{ OR } t^{1\text{st}} \text{ AND } T^{2\text{nd}} \end{array} \right] \left[ \begin{array}{c} \cancel{0} + \frac{2}{2} \times \frac{1}{2} \\ \text{E}^{1\text{st}} \text{ AND } e^{2\text{nd}} \text{ OR } e^{1\text{st}} \text{ AND } E^{2\text{nd}} \end{array} \right] \\
 \left[ \begin{array}{c} \frac{2}{4} + 0 \\ \frac{1}{2} \end{array} \right] \times \left[ \begin{array}{c} 0 + \frac{2}{4} \\ \frac{1}{2} \end{array} \right] = \boxed{\frac{1}{4}}
 \end{array}$$