

Calculation of the cost over the benefit of codon c at position i where
 a_1 is the static cost of genome building
 a_2 is the general cost of reading a codon (assumed constant, likely not)
 n is the length of the genome
 p_{ic} is the probability of a nonsense error at position i using codon c
 p_j is the probability of a nonsense error at position j (not knowing the codon?)

At position i ...

$$\begin{aligned}
\frac{\text{Expected Cost}}{\text{Expected Benefit}} &= \frac{[(\text{probability we reach } i)(\text{cost of reaching } i)(\text{probability of failure})]}{\text{Expected Benefit}} \\
&= \frac{\left[\prod_{j=1}^{i-1} (1 - p_j) \right] \left[\sum_{k=1}^i a_1 + a_2(k - 1) \right] [p_{ic}]}{\prod_{j=1}^n (1 - p_j)} \\
&= \left[\prod_{j=i}^n (1 - p_j) \right] \left[\sum_{k=1}^i a_1 + a_2(k - 1) \right] [p_{ic}] \\
&= \left[\prod_{j=i+1}^n (1 - p_j) \right] \left[\sum_{k=1}^i a_1 + a_2(k - 1) \right] \left[\frac{p_{ic}}{1 - p_{ic}} \right]
\end{aligned}$$