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Discussion

1. Ratio is large when the reaction-rate combinations that worked well.

   It match the discussion in class for about 10000 times larger for the correct combination.

   dF, dR, bR these three reaction rates were always bigger than others.

   When $eR = dF = 0$, tends to irreversible reaction.

2. The entire program runs in 15s roughly. There is 625 different combinations, so each combination roughly take 0.024s.

   If 5 values of 10 reaction rates, then have $5^{10} = 9,765,625$ combinations. Each combination cost 0.024s. Total time is $9,765,625 \cdot 0.024 = 234,375$s, 61 hours.

   Not feasible for such situation since it will take too much time to compute the best combination.

3. Decay is that $mRNA \cdot tRNA*$ converts to $mRNA + tRNA$ and back to $mRNA \cdot tRNA*$. $dF * mRNA * tRNA - dR * EB$ is the derivative of decay over time.

Extra credit