Log-Sum-Exp Trick $a_1 = 3.96 \times 10^{-107} \quad k_1 = \log(a_1) = -245$ $a_2 = 1.80 \times 10^{-111} \quad k_2 = \log(a_2) = -255$

Compute $a_1 + a_2 = ?$

 $M = Max(k_1, k_2) = -245$

10g (a1+a2) = (of ek1 + ek2)

 $=109(e^{M}\cdot(e^{k_{1}-M}+e^{k_{2}-M}))$

= 109 cm + 109 (eki-M+eks-M)

 $= M + \log(e^{0} + e^{-10})$

 $=-245+105(e^{0}+e^{-10})$

COEIL WITH NAR REST. 181. 188. 188.

4e: 7/30/2018 62 COUT > 1286 (184 (07.127) 8

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