Solving NP-hard problems exactly is … unlikely

- Number of (unrooted) binary trees on n leaves is (2n-5)!!

- If each tree on **1000** taxa could be analyzed in **0.001** seconds, we would find the best tree in

  2890 millennia

#leaves	#trees
4	3
5	15
6	105
7	945
8	10395
9	135135
10	2027025
20	2.2×10^{20}
100	4.5×10^{190}
1000	2.7×10^{2900}