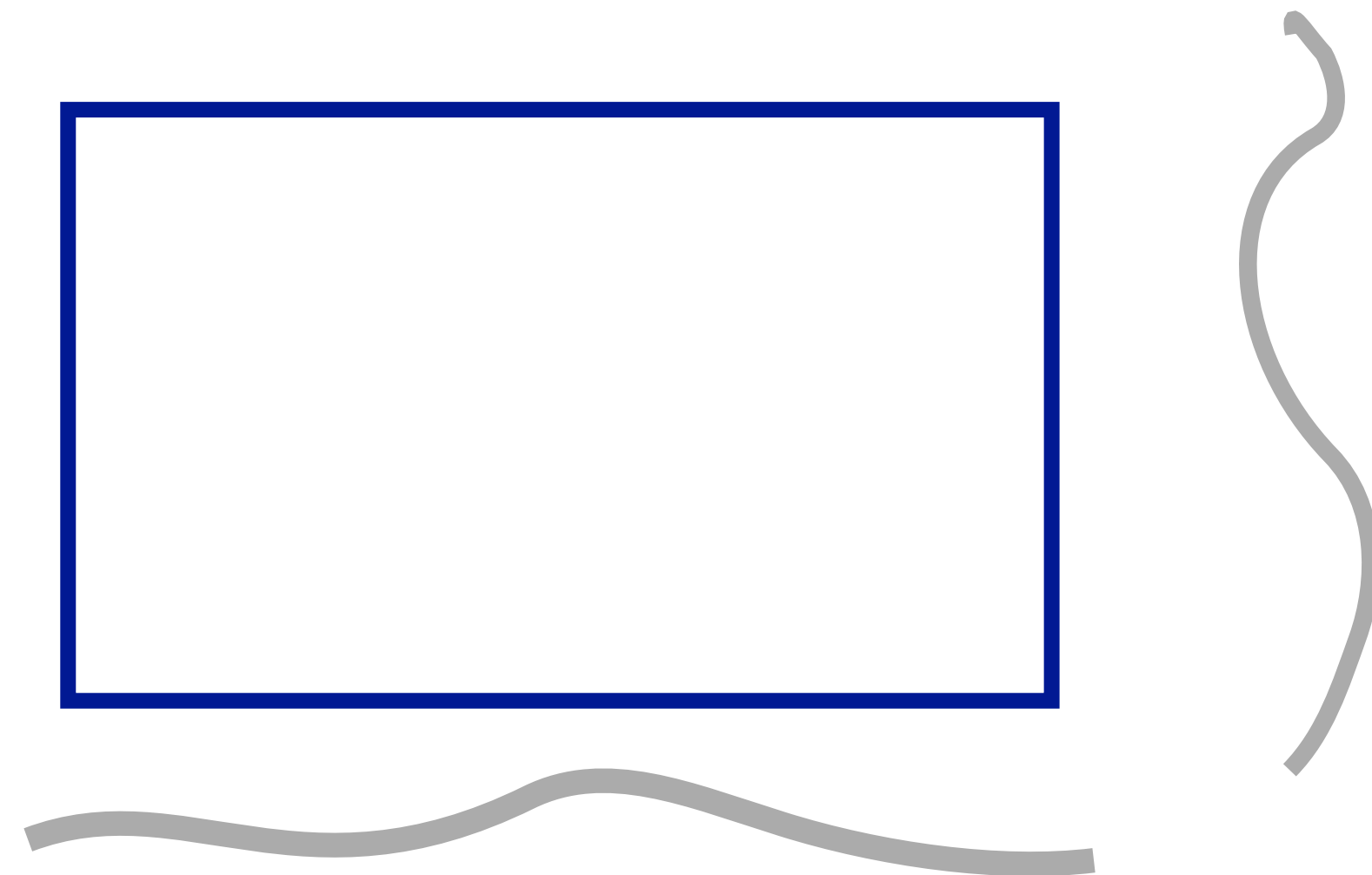


Before I was
this big as 2H_2 and O_2

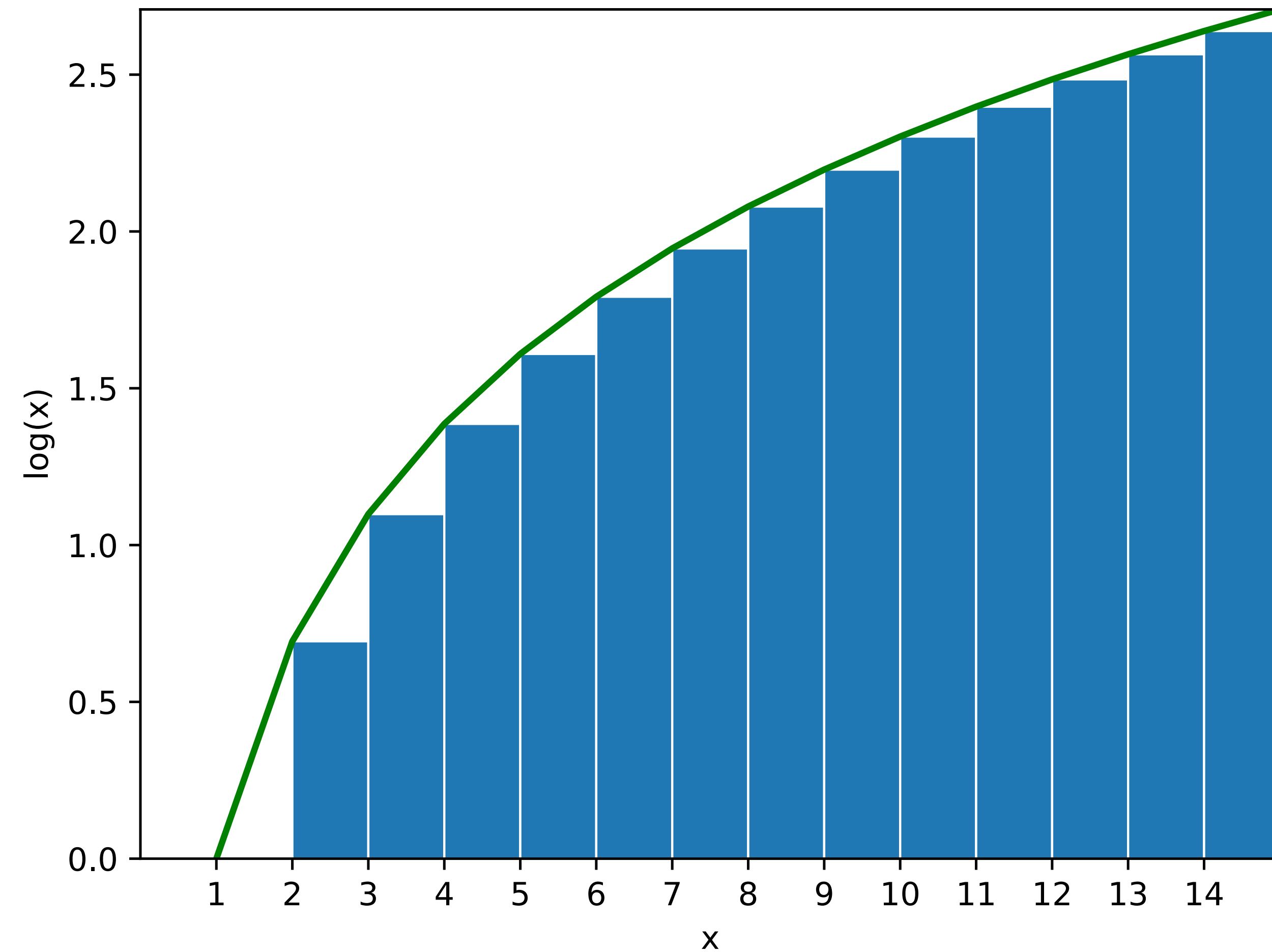


Now I am
this big as $2\text{H}_2\text{O}$



The surrounding air at atmospheric pressure
does work $p_0\Delta V$ on system during the reaction

Deriving the Stirling approximation:



Replace the sum with
integral