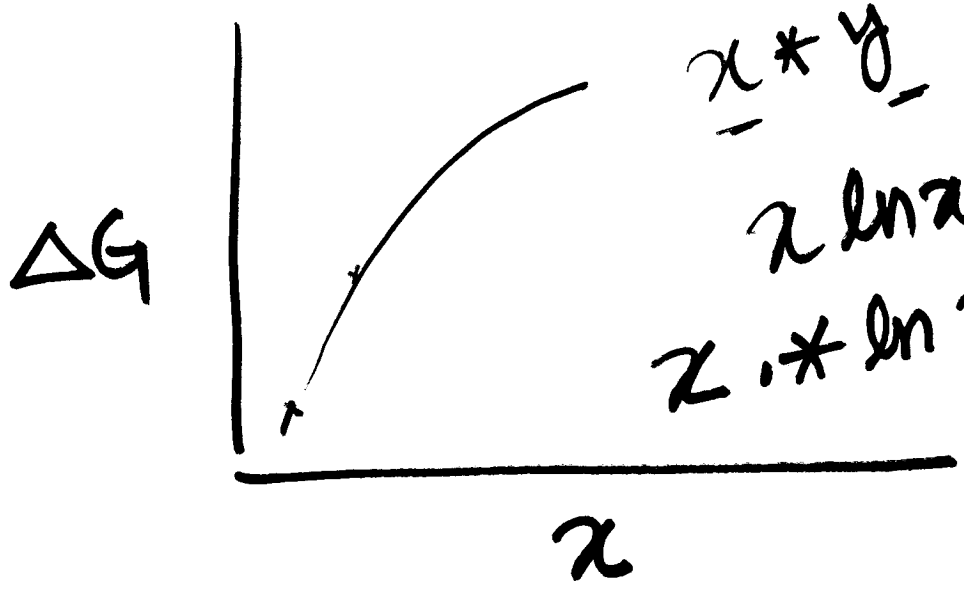
$$\Delta G = RT\left[x \ln x + (1-x)\ln(1-x)\right]$$

$\downarrow$

$8.314\ J/mol\,|\,K.$

$300\ K.$

$$\frac{\Delta G}{RT} = x \ln x + (1-x)\ln(1-x)$$




x * y

x ln x + (1 - x) ln(1 - x)

x .* ln x .+ (1 - x) .* ln(1 - x)

| x | ΔG |
|---|---|
| 0.01 | |
| 0.02 | |
| ⋮ | |
| 0.99 | |

ΔG(x)

$$x = \begin{bmatrix} 0.001 \\ 0.002 \\ \vdots \\ 0.999 \end{bmatrix}$$

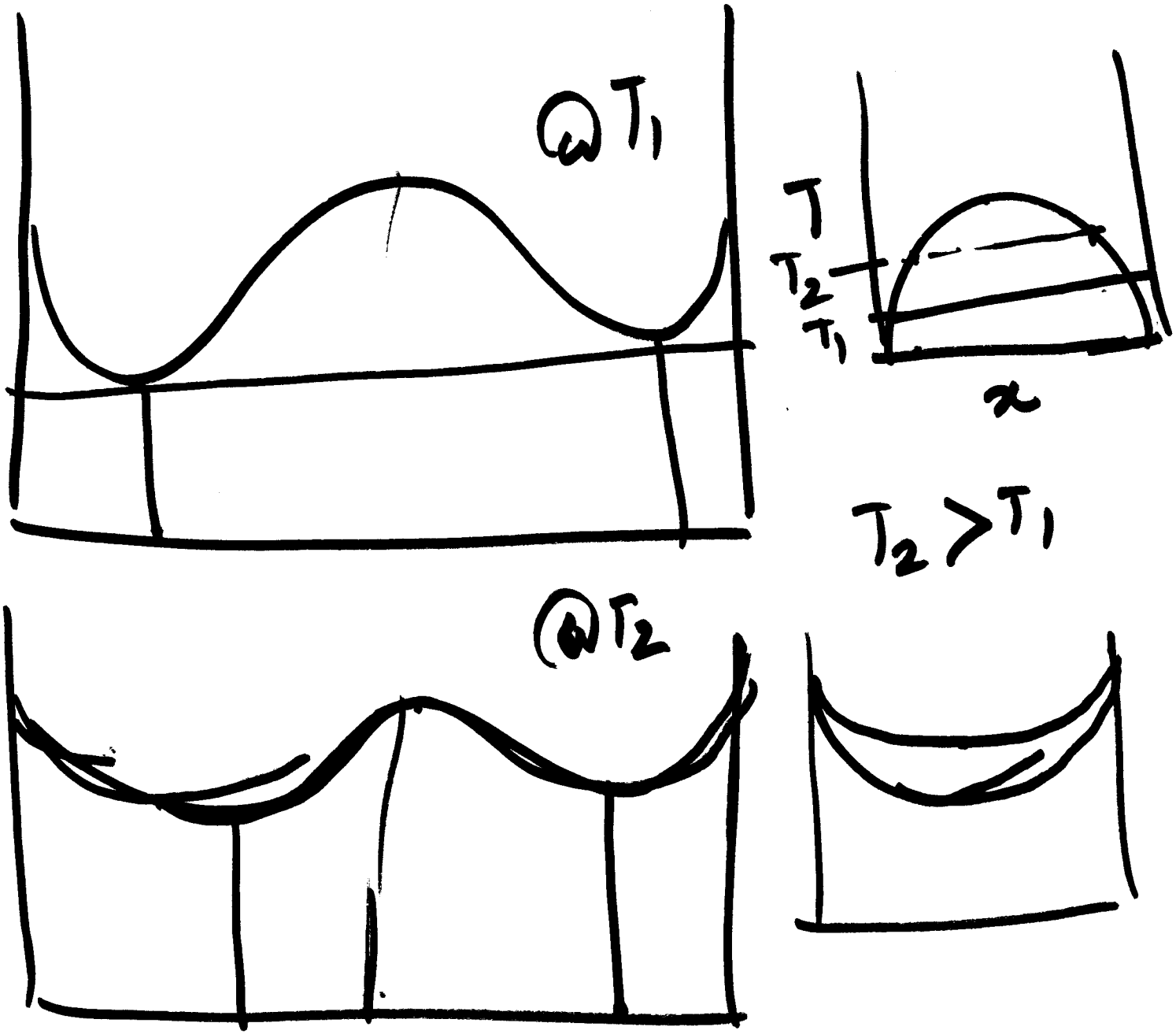
$$\Delta G = \begin{bmatrix} = \\ = \end{bmatrix}$$

$$\Delta G = \Omega x(1-x) + RT\left[x \ln x + (1-x)\ln(1-x)\right]$$

$$\frac{\Delta G}{RT} = \frac{\Omega}{RT} x(1-x) + x \ln x + (1-x)\ln(1-x)$$

$$DG = \underbrace{\alpha\, x(1-x)}_{DH} + \underbrace{x \ln x + (1-x)\ln(1-x)}_{DS}$$

$$\boxed{\alpha \equiv \frac{\Omega}{RT}}$$


@ $T_1$
T
$T_2$
$T_1$
x
$T_2 > T_1$
@ $T_2$