

$$A = -NkT \ln Q \quad \text{[II] (C)(ii)}$$

$$A = -kT \ln Q$$

Helmholtz	A	$A = -NkT \ln Q$	k Boltzmann	T
Helmholtz			Helmholtz	A^T N, k, T, q^T
		Stirling	$\ln x! = x \ln x - x$	