1.4.17

$$\Sigma(N,V,E) \approx \left(\frac{V}{h^3}\right)^N \frac{(2\pi mE)^{\frac{3N}{2}}}{\left(\frac{3N}{2}\right)!}$$

1.4.17(a)

$$\Gamma(N,V,E) = \left[\frac{\partial \Sigma(N,V,E)}{\partial E} \cdot \Delta\right] \approx \frac{3N}{2}\frac{\Delta}{E}\Sigma(N,V,E) = \left[\frac{3N}{2}\frac{\Delta}{E}\right]\left(\frac{V}{h^3}\right)^N \frac{(2\pi mE)^{\frac{3N}{2}}}{\left(\frac{3N}{2}\right)!}$$

$$= \frac{E}{\Delta} \cdot V^N \frac{(2\pi mE)^{\frac{3N}{2}}}{\left(\frac{3N}{2}-1\right)!} \times \left(\sqrt[3N]{}\right)$$