$$T(x,y,z,t) = \frac{1}{(4\pi kt)^{3/2}} \; e^{-(x^2+y^2+z^2)/(4kT)}$$

$$\frac{\partial T}{\partial x} = \frac{1}{(4\pi kt)^{3/2}} \cdot e^{-(x^2+y^2+z^2)/4kT} \cdot \frac{-2x}{4kT}$$

$$-\frac{(x^2+y^2+z^2)}{4kT} \qquad \frac{-x^2}{4kT} + \frac{-y^2}{4kT} + \frac{-z^2}{4kT}$$

$$\frac{\partial^2 T}{\partial x^2} = \frac{1}{(4\pi kt)^{3/2}} \cdot \frac{-2}{4kT} \left(1 \cdot e^{\cdots} + x e^{\cdots} \cdot \frac{-2x}{4kT} \right)$$

$$\times \cdot \underbrace{e^{-(x^2+y^2+z^2)/4kT}}$$

$$\frac{\partial T}{\partial t} \qquad \frac{1}{(4\pi k)^{3/2}} \cdot \frac{1}{t^{3/2}} \cdot e^{-(x^2+y^2+z^2)\cdot \frac{1}{4k} \cdot \frac{1}{t}}$$

$$t^{-3/2} \qquad t^{-1}$$

$$\frac{\partial T}{\partial t} = \frac{1}{(4\pi k)^{3/2}} \cdot \left(-\frac{3}{2} t^{-5/2} e^{-(\cdots)} + \frac{1}{t^{3/2}} \cdot e^{-(\cdots)} \cdot \right.$$

$$\left. \cdot \frac{-(x^2+y^2+z^2)}{4k} \cdot \frac{-1}{t^2} \right)$$