[175r] [in De Morgan's hand] This complete differential of φ, as it is called namely

$$\frac{d\varphi}{dx}.dx + \frac{d\varphi}{dy}.dy + \frac{d\varphi}{dz}.dz$$

is a perfectly distinct thing from

$$\frac{d\varphi}{dx} + \frac{d\varphi}{dy} + \frac{d\varphi}{dz}$$

and also from $\frac{d^3\varphi}{dx\,dy\,dz}$

Read again page 86 when x is changed
to ___ end of 87

page 198–199 & the
references

$$\left.\begin{array}{ccc} \frac{d\varphi}{dx}dx & \text{is} & d\varphi \\ \frac{d\varphi}{dy}dy & \text{is} & d\varphi \end{array}\right\}$$
But the first means the $d\varphi$ which is caused by variation of x, and the second has the same reference to y.