

Author's Name

1. Partial derivatives.

(a) $f_x(x, y) = x^2 + y^2$.

(b) $f_y(x, y) = \sin(xy)$.

2. This is a problem about a double integral!

$$\int_{y=0}^{y=6} \int_{x=0}^{x=6-y} f(x, y) \, dx \, dy = 8/3.$$

or if you don't want it displayed, $\int_{y=0}^{y=6} \int_{x=0}^{x=6-y} f(x, y) \, dx \, dy = 8/3$, or

perhaps you prefer $\int_{y=0}^{y=6} \int_{x=0}^{x=6-y} f(x, y) \, dx \, dy = 8/3$?

3. Let's take partial derivatives a different way!

$$\frac{\partial}{\partial x} xy = y.$$

If you need a particular symbol and don't know the code for it, try detexify.kirelabs.org.