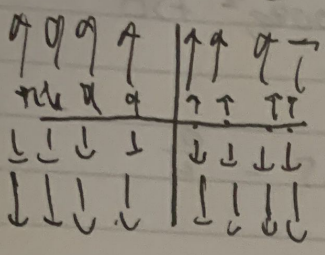


1. $F = \langle x, y^2 \rangle$



2. $F = \langle y \cos(xy), x \cos(xy) \rangle$

$f_x = y \cos(xy)$

$\int y \cos(xy) dx \rightarrow \boxed{\sin(xy) + C}$