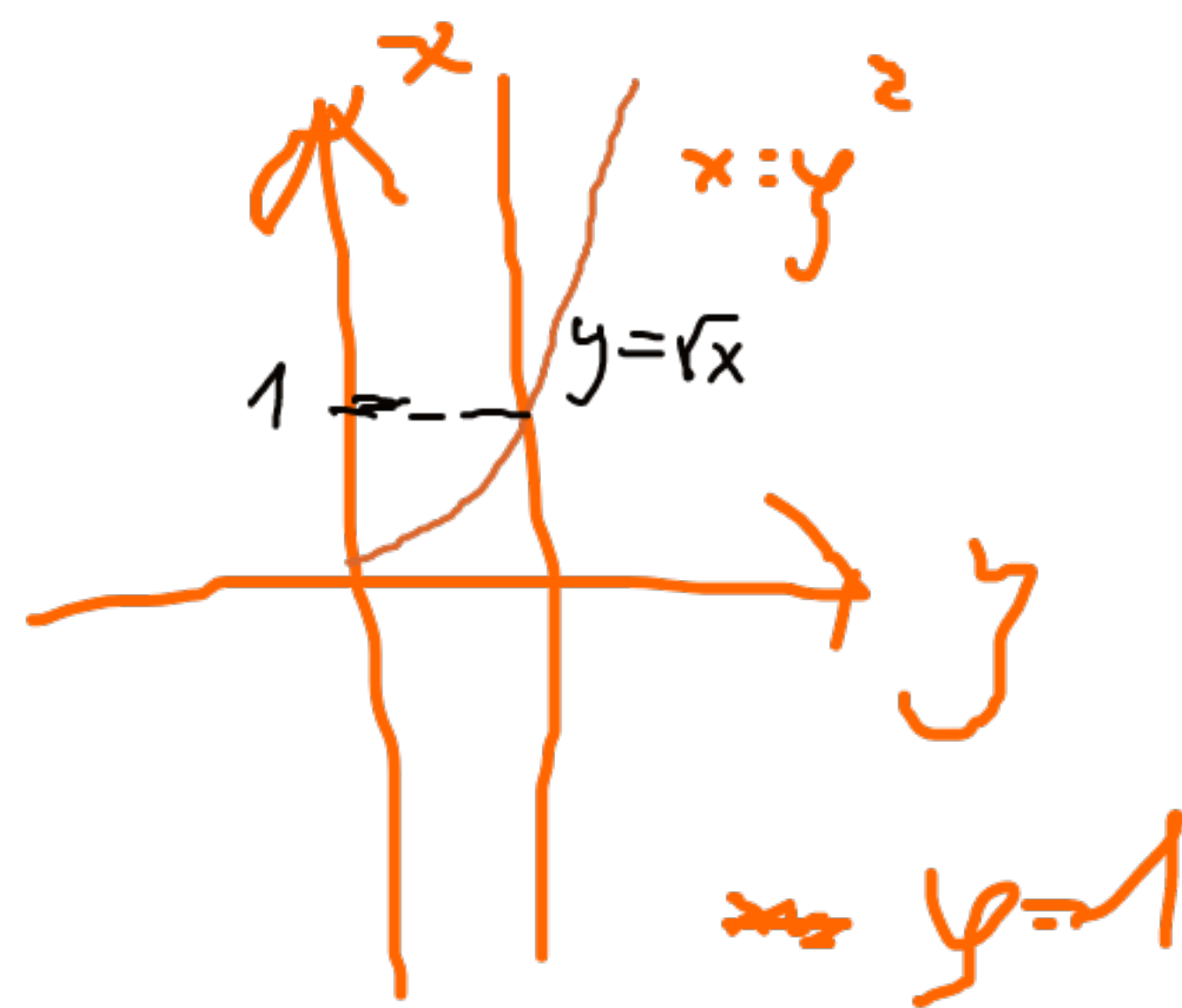


$$\iint_D e^{\frac{x}{y}} dx dy$$

$$= \int_0^1 dx \int_0^{\sqrt{x}} e^{\frac{x}{y}} dy$$



$$\int_0^1 dy \int_0^y e^{\frac{x}{y}} dx =$$

$$\int_0^1 dy (ye^{\frac{x}{y}}) \Big|_0^y = \int_0^1 (ye^{\frac{y}{y}} - 0) dy =$$

$$\int_0^1 (ye^1 - 0) dy = \int_0^1 (ye - 0) dy = \left[\frac{1}{2} e y^2 \right]_0^1 = \frac{1}{2} e - 0 = \frac{1}{2} e$$

$$\int ye^y dy = \int y(e^y)' dy =$$

$$\left(\frac{1}{2} e - 0 \right) - (0) = \frac{1}{2} e$$

$$= ye^y - \int y' e^y dy = \underline{ye^y - e^y + C}$$