

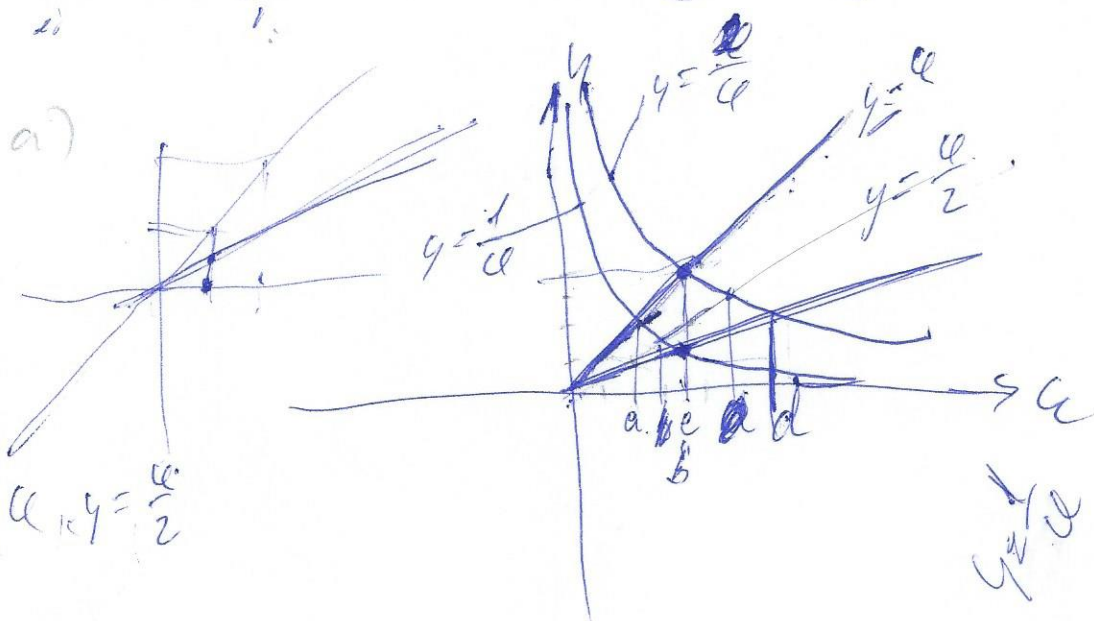
a)

$$\iint_D e^{xy} dx dy$$

$$D \in \mathbb{R}^2$$

$$\int_{x_1}^{x_2} dx \int_{y_1}^{y_2} dy$$

$$\int dy \int dx$$



$$y = \frac{1}{2}x$$

$x \backslash y$	0	1	2	4
0	0	1	2	4
1	0	1	2	4
2	0	1	2	4
4	0	1	2	4

$$y = x$$

$x \backslash y$	0	1	2	4
0	0	1	2	4
1	0	1	2	4
2	0	1	2	4
4	0	1	2	4

$$xy = 1$$

$x \backslash y$	1	1/2	1/4
1	1	1/2	1/4
2	1	1/2	1/4
4	1	1/2	1/4

$$xy = 2$$

$x \backslash y$	2	1
1	2	1
2	2	1

$$xy = 1$$

$$y = \frac{1}{x}$$

$$y = \frac{2}{x}$$