

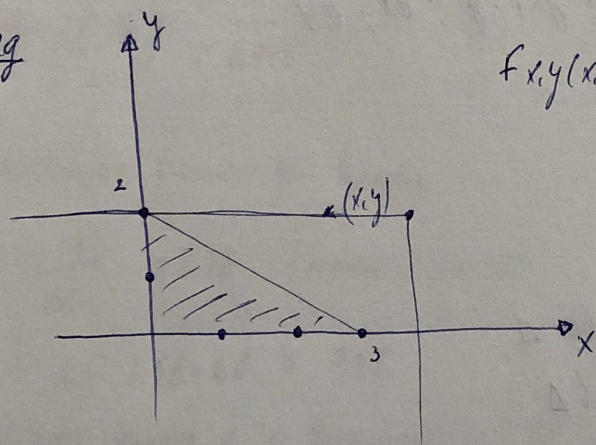
$$f_X(x) = \int_{-\infty}^{\infty} f_{X,Y}(x,y) dy$$

	x_1	x_2	x_3
y_1			
y_2			
y_3			
$P(X=x_i)$	сума на редове		

X и Y са независими, ако $P(X \leq x, Y \leq y) = P(X \leq x) P(Y \leq y)$ за $\forall x, y \in \mathbb{R}$, или $f_{X,Y}(x,y) = f_X(x) f_Y(y)$. Ако това е изпълнено (и съществуват изрази), то:

$$f_{X,Y}(x,y) = f_X(x) f_Y(y)$$

Заг

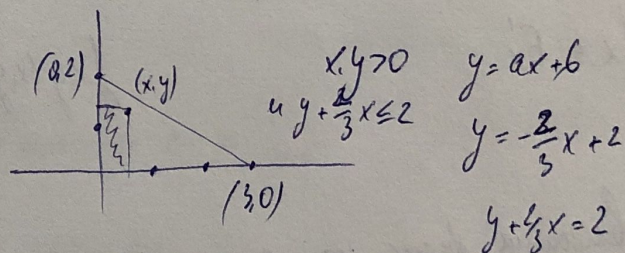


$$f_{X,Y}(x,y) = P(X \leq x, Y \leq y)$$

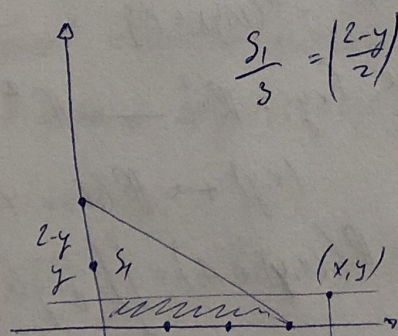
Ia $x > 3$ и $y > 2$
 $f_{X,Y}(x,y) = 1$

IIa $x < 0$ и $y < 0$
 $f_{X,Y}(x,y) = 0$

IIIa



IIa



$$\frac{S_1}{3} = \left(\frac{2-y}{2}\right)^2$$

$$\Rightarrow f_{X,Y}(x,y) = \frac{3 - \frac{2}{3}(2-y)^2}{3} = 1 - \frac{1}{3}(2-y)^2$$

$\Leftrightarrow 3y + 2 \leq 6$
 В този случай
 $f_{X,Y}(x,y) = \frac{S_0}{S_1} = \frac{xy}{3}$