$$Y: \begin{pmatrix} -1 & 1 & 2 \\ \frac{1}{2} & \frac{1}{6} & \frac{1}{3} \end{pmatrix}$$

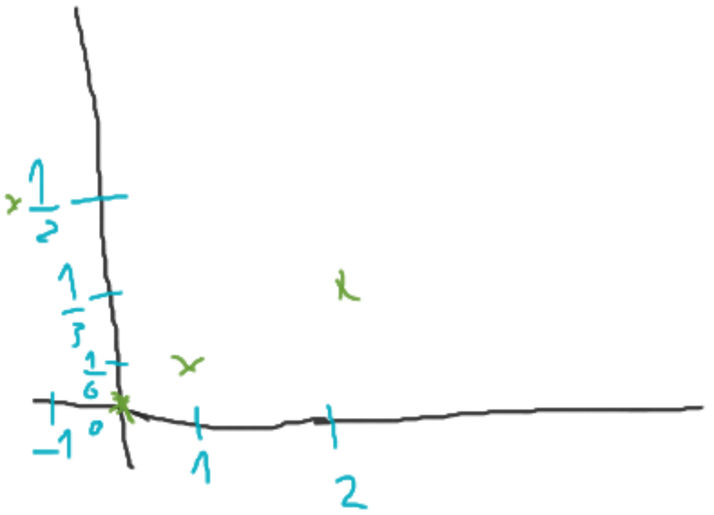
PMF

$$F_{(Y=-1)} = \frac{1}{2}$$

$$F_{(Y=1)} = \frac{1}{6}$$

$$F_{(Y=2)} = \frac{1}{3}$$

$$F_{(Y=y)} = 0$$



$$Y : \begin{pmatrix} -1 & 1 & 2 \\ \frac{1}{2} & \frac{1}{6} & \frac{1}{3} \end{pmatrix}$$

CDF :

$$F_{(y<-1)} = \frac{1}{2}$$

$$F_{(-1 \le y \le 1)} = \frac{1}{6} + \frac{1}{2}$$

$$F_{(y \le 2)} = \frac{1}{3} + \frac{1}{6} + \frac{1}{2}$$

$$F_{(y>2)} = \frac{1}{3} + \frac{1}{6} + \frac{1}{2}$$