Example: We have an experiment where we flip a coin 3 times. x is equal to the number of tails on the first flip. y is equal to the total number of tails observed.

$$x \in \{0, 1\}$$
$$y \in \{0, 1, 2, 3\}$$

Suppose we also had

$$z = \begin{cases} 1 & \text{We have an even number of heads} \\ 0 & \text{We have an odd number of heads} \end{cases}$$

x \ y	0	1	2	3
0	.125	.25	.125	0
1	0	.125	.25	.125

In general, suppose x is discrete taking values $x_1, x_2, \ldots, x_k$. y is also discrete taking values $y_1, y_2, \ldots, y_k$.