Binary representation

$x(0) = y(0) = 000$

$x(1) = y(1) = 001$

Interleaving

$(0,0)$ $(1,0)$

$x(0) = 000$ $x(1) = 001$

$y(0) = 000$ $y(0) = 000$

$\Rightarrow 000000$ $\Rightarrow 00010$

$(0,1)$ $(1,1)$

$x(0) = 000$ $x(1) = 001$

$y(1) = 001$ $y(1) = 001$

$\Rightarrow 000001$ $\Rightarrow 000011$