1. $S = \{(u,v) \in \mathbb{R}^2 : 0 \le u \le 3, 0 \le v \le 2\}; x = 2u + 3v, y = u - v$

   - $v = 0 \wedge u = 0 \Rightarrow (x,y) = (0,0)$
   - $v = 2 \wedge u = 3 \Rightarrow (x,y) = (12,1)$