$$= \{(q_1 v) \mid u \in [-1,1], \quad \bar{u} \leq v \leq 1-u^{\frac{1}{2}}\}$$

= $\{(4,\sigma) \mid 0 \leq 4+\sigma, u+\sigma \leq 1, \sigma \leq \sigma, v \leq 1\}$

 $D = \left\{ (u, \sigma) \middle| u + \sigma \in [0, 1], \sigma \in [0, 1] \right\}$