

$$R = \{(1,1), (1,2), (2,1), (1,-1), (2,2)\}$$

$$R_1 = \{(a,b) \mid a \leq b\} = \{(1,1), (1,2), (2,2)\}$$

$$R_2 = \{(a,b) \mid a > b\} = \{(2,1), (1,-1)\}$$

$$R_3 = \{(a,b) \mid a = b \vee a = -b\} = \{(1,1), (1,-1), (2,2)\}$$

$$R_4 = \{(a,b) \mid a = b\} = \{(1,1), (2,2)\}$$

$$R_5 = \{(a,b) \mid a = b+1\} = \{(2,1)\}$$

$$R_6 = \{(a,b) \mid a+b \leq 3\} = \{(1,1), (1,2), (2,1), (1,-1)\}$$