

Question 6: (3 Marks) (Time 10 minutes)

Draw the matrix representing the relation R on $A = \{1, 2, 3, \dots, 10\}$ consisting of the first 10 positive integers have if R

6.1. $R = \{(a, b) \mid a \leq b + 1\}$

6.2. $R = \{(a, b) \mid a = b + 1 \text{ or } a = b - 1\}$

6.3. $R = \{(a, b) \mid a + b = 10\}$

6.4. $R = \{(a, b) \mid a + b \leq 11\}$?

6.5 $R = \{(a, b) \mid a = 0 \text{ or } b = 10 \text{ or } a + b = 10\}$

Please Note: I need a matrix of size $10 * 10$