Name	:		Marks
Student ID	:	Section :	
Date	:		10

1. For the set $A = \{1, 2, 3, 4, 5, 6\}$ and the relation R on A, defined by,

$$R = \{(a,b) \mid a * b < 6, a \in A, b \in A \}$$

a. Find R

b. Find the domain and range in R

2. Given the relation $S = \{(1,1), (1,3), (2,1), (2,2), (2,3), (3,3), (4,4)\}$ on the set $X = \{1, 2, 3, 4\}$

a. Find the matrix relation for S

b. Find the in-degree and out-degree.

c. Is S a partial order relation? Justify your answer.