

Disco II - Quiz 3

Name: _____

Box # _____

Let $S = \{1, 2, 3, 5, 6, 10, 15, 30\}$, the divisors of 30. Let $|$ denote the relation $x|y$ if x exactly divides y .

1. Find all the ordered pairs for the relation $|$ on S .
2. Fill in the relation matrix M for $|$. (M is the zero-one submatrix that you fill in).

$ $	1	2	3	5	6	10	15	30
1								
2								
3								
5								
6								
10								
15								
30								

3. Find the column sum of M corresponding to 15. How many divisors does 15 have? Generalize to the column sums of the matrix M .