

## Math 417 Worksheet - March 27, 2019.

Consider the ring  $R = \mathbb{Z}/2\mathbb{Z} \times (\mathbb{Z}/3\mathbb{Z})$ , whose elements are  $([a]_2, [b]_3)$ ,  $a=0,1; b=0,1,2$ .

- 1) write down the addition table and show that  $(R,+)$  is a cyclic group of order 6. (Hint: consider  $([1]_2, [1]_3)$ )

- 2) write down the multiplication table + determine the units and the zero-divisors for  $R$ .