

1. Find $\text{ord}(4)$, $\text{ord}(5)$ and $\text{ord}(6)$ in \mathbb{Z}_7^*
2. (a) Show that $n - 1 \in \mathbb{Z}_n^*$ for every n
(b) What is $\text{ord}(n - 1)$ in \mathbb{Z}_n^* ?
3. For each group of units, list the elements and find a generator, if one exists
 - (a) \mathbb{Z}_5^*
 - (b) \mathbb{Z}_9^*
 - (c) \mathbb{Z}_8^*
 - (d) \mathbb{Z}_{13}^*
 - (e) \mathbb{Z}_{15}^*
 - (f) \mathbb{Z}_{31}^*