

Directions

1. Complete the following questions.
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1. Suppose G is a cyclic group of order n . Show that for an integer m between 1 and n the order of g^m is $n/\gcd(m, n)$ where g is a generator.

2. Suppose G is a cyclic group of order n , show that there are exactly $\phi(n)$ generators.

3. Identify two generators of \mathbb{Z}_{13}^* .

