

Modern algebra I, spring 2017. Quiz 2

Name: _____ UNI: _____

Check the boxes that are followed by correct statements.

- Permutation $(12)(34)$ has order 4.

- In a cyclic group C_{40} generated by a , element a^5 has order 8.

- If a group G is commutative and H is a subgroup of G , then H is commutative.

- The set $\{\text{id}, (123)\}$ is a subgroup of S_3 .

- The set $\{0, 2, 4\}$ is a subgroup of $\mathbb{Z}/6$. (The group operation on $\mathbb{Z}/6$ is addition.)

- For a subgroup H of a group G , any two left cosets g_1H and g_2H are either disjoint or equal.