

Name _____

Mathematics 309a: Abstract Algebra
Winter Semester 2009

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Quiz #9

March 3

Fill in the blanks:

1. The cyclic subgroup of Z_{22} generated by 18 has order _____ .

2. $Z_8 \times Z_4$ has order _____ .

3. The element (4, 2) of $Z_8 \times Z_4$ has order _____ .

4. The element (1, 1) of $Z_8 \times Z_4$ has order _____ .

5. The Klein 4-group is isomorphic to $Z_{____} \times Z_{____}$.

6. $Z_8 \times Z_4 \times Z$ has _____ elements of finite order .

7. One generator for the cyclic group $Z_8 \times Z_7$ is the element _____ .