

Math 412
Quiz 1
Thursday, January 18

You have 15 minutes to complete the quiz. You may turn in corrections for up to half credit back by the beginning of the next class period.

Name: _____

1. (3 points) Write complete, precise definitions for, or precise mathematical characterizations of, the following (italicized) terms.

An integer $p \notin \{-1, 0, 1\}$ is *prime*...

2. (4 points) Use the Euclidean algorithm to write the greatest common divisor $(578, 45)$ as a linear combination of 578 and 45 with integer coefficients.

3. (3 points) If $a|c$ and $b|c$ and $(a, b) = d$, show that $ab|cd$.