

Your Name: _____ Group Members: _____

In-class Problem 1 Find the greatest common divisors of the pairs of integers below and write the greatest common divisor as a linear combination of the integers.

- (a) $(21, 28)$
- (b) $(32, 56)$
- (c) $(0, 113)$
- (d) $(78, 708)$

Pause for more lecture.

In-class Problem 2 Let p be prime.

- (a) If $(a, b) = p$, what are the possible values of (a^2, b) ? Of (a^3, b) ? Of (a^2, b^3) ?
- (b) If $(a, b) = p$ and $(b, p^3) = p^2$, find (ab, p^4) and $(a + b, p^4)$.