

Homework 2 (Due Wed., Jan 27, 2016)

Do SIX problems

Section 1.3

#42(b)

#47

#48

#44

Section 1.4

(*) Let $a = 4331$, $b = 1342$. Use Euclidean Alg. to
Find $d = (a, b)$ & find integers x, y :
 $ax + by = d$

(*) Let $a, b, c, d \in \mathbb{Z}$ where a, b not both zero.

Let $d = (a, b)$. PROVE that

$ax + by = c$ for some integers x, y if and only if $d | c$.

Section 1.5

(*) Let $a = 2^3 \cdot 3^2 \cdot 5^2 \cdot 13^7$, $b = 2^5 \cdot 3^3 \cdot 13^5 \cdot 19$.
Find (a, b) and $[a, b]$.

#70

#78

#87