Subject: Recitation 4

Year: $n \mid k$ Month: Date:

P1. (a) $\cancel{k \mid n}$ $\cancel{k \neq 1}$ ~~for~~ $\cancel{n \nmid k}$

(b) $jk = cn + 1$ therefor

$jk - cn = 1$

$gcd(\cancel{k}, n)$

n, k

P2. Proof (by Ind.)

I.H. $P(n) ::= gcd(F_n, F_{n-1}) = 1$

B.C. $gcd(1, 0) = 1$ ✓

I.S. assume $P(n)$

$gcd(F_n, F_{n-1}) = iF_n + jF_{n-1} = 1$

$\rightarrow \exists\ c, k$ s.t. $(c+k)F_n + cF_{n-1} = 1$ ✓