

Claim NK-1-WS-1 - C

 $N_{k-1} \neq N_{k-1} M_{s-1} \neq G$

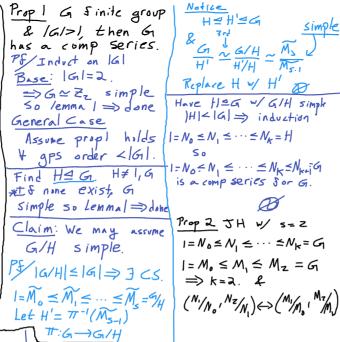
PS Induction on min{k.s}

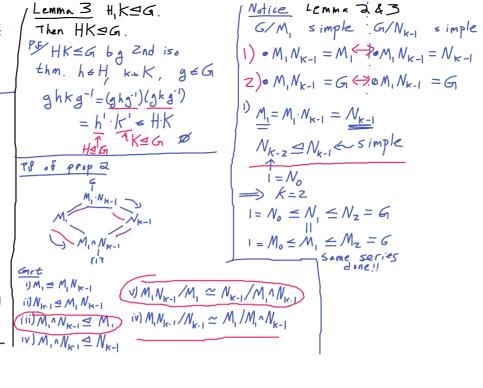
Lb)

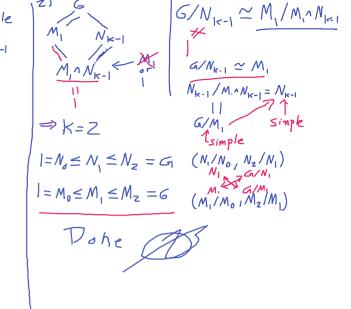
Base unse

min = 2

Inductive Step







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Lemma 2 since G/NK-1
simple dincas
  H= Nk-1 1 M s-1
                                                                       S0 15
                                                                      1 \le N_0 \le \dots \le N_{k-1} is too
* Nk-1 = W2-1
                                            G = Nic. 1 Ms-1
                                                                       Ind +1=k-1*
1 = N_o \leq \cdots \leq N_{k-1} = H
                                                                         (N_{i+1}/N_i) \longleftrightarrow (H_{i+1}/H_i) \lor (N_{i-1}/H) ( + )
|=M_0 \leq \cdots \leq M_{s-1} = H
Ind k-1=5-1 (k=s)
                                            H-NK-11 MS-1
                                                                    1 = H_0 \le H_1 \le \cdots \le H_4 \le M_{s-1}
(M_{i+1}/M_i) \Leftrightarrow (N_{i+1}/N_i)
                                                                    1-M, = M. = ... = Ms.,
                                       * Nk-1/H ~ G/Ms-1
                                                                        c.s. => by ind.
Adding GI/H to each list
                                                                        s-1=+++
 proves result.
                                      * Mx.1/H ~ G./Nk-1
                                                                     (M_{i+1}/M_i) \iff (H_{i+1}/H_i) \vee (M_{s-1}/H)
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, LEMMA3

 $1 \le H_0 \le \cdots \le H_t = H$

 $1 \le H_0 \le \cdots \le H_L \le N_{k-1}$

IS a CS for NK-1

is a cs for H

