

PERMANENCE OF SIGN THEOREM

LET { and GIR BE A SEQUENCE OF REAL NUMBERS SUCH THAT] LIM an = I & [-100,+100]

W) IF \$>0 (INCCUDING \$2+0) THEN ON >0 DEFINETLY,
THAN IS, 3 NO EIN SUCH THAT YNZNO WE HAVE ON >0

6) IF 100 (INCLUDING 1 =- 00) THEN ONCO, DEFINETCY,
THAN 15, HOEN S.T. YNZNO WE HAVE ONCO

PROOF)

a) LEIR , Loo

HYP: YESO BNOEIN S.T. YNENO WE HAVE

PICH EDO S.T. 1-870 (E=1), THEN YNZNO WE

MAVE OC 1-ELOW SO ONTO, IN PARTICULAR BNOEIN S.T.

ANSNº 000 1/2

THEN IF I IS POSITIVE ALSO OUN IS POSITIVE