30 by Hadrica hypothesis

57 - 051

Induction Priciple for H

(Stip)

(IFTre)

(Inhile Folce)

(htile Tre)

to show You E H. P(2)

Ship, or Ho

 (S, σ, σ')

i.e. \ (S, o, o') & \ P(S, 0,0')

Xee, of to CXHIETAGI

(comp) S,, o, Hoz Sz, oz Hoz

 $S_1, S_2, \sigma_1 \leftrightarrow \sigma_3$

 $P\left(S, S_2, \sigma_1, \sigma_3\right)$

 $(=P(S_1,\sigma_1,\sigma_2)$

and P(Sz, oz, oz)

F (S, o, oz) } Induction
tespotesis

EDR (O)=1

and P (while e do 5, 02, 03)

and Tells(or)=T

P(while a do S, or, or)

P(while e do S, o, , oz)

and $\mathbb{C}e\mathbb{J}_{B}(\sigma_{i})=\mathbb{T}$

P(S, 01, 052)

if e Men S, Qse Sz, O, Hoz

P(if ette S, else S, o, , oz)

P(zee, o, ocx+)[e](o))

P(Stip, o, o) for any ortstelle

Our Sz of It oz TeTn(on)=T and Hovertone S, ot, Hotz $Mus 65 IH? <math>\sigma_z = \sigma_z$ (While The) While e do Soff $S, \sigma, \Leftrightarrow \sigma_2$ Tells(05)=T While edo S, o, & TH: S, o, Ho oz = 021) while 2 do S, 02 Hos New 03 - 031 ASSURE Ulie e do S, or, 45 (5) by hasion $S, \sigma, 4$ and while e do S, or Hoz by holdion $O_2 = O_2$ 65 Induction Oz = 5-1

By hoosi'ar

5) 07 - 05 (Goal)

 $\frac{1}{2} \qquad \frac{1}{2} \qquad \frac{1}$

Ced S, 0, \$\forall \sigma_1

[e] [o] = T

[e] (o,) = 1