Practice exercise	18 A . 18
1) Let a EZ+. Show that if a is odd then a2 must be odd	. 26x 2 KT
@ Proof using induction that 1+3+5+9+ + 2k+1) is k2	h. ya kanala sa kata a
2 Inductive Predicate:	1 to make the
12+3+5+2++2/1-1)=12	Par wales To a V
Base case:	in the second se
P(1) = 1 LHS = 1, RHS = 1	
Indictive step:	
1f 1+3+5+2++2(i-1) < i <sup>2</sup>	eng biton to the
then 1+3+5+2++2(i+1)=(i+1)2	
1. HS = 12+ 2(1+1)	-
$\frac{2}{2}$ $\frac{2}{2}$ $\frac{1}{2}$ $\frac{2}{2}$ $\frac{1}{2}$ $\frac{2}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	And the second second
RHIPERAITI = RHS	Taran e pa
of he is even then n is even the contrapositive	· 16295 2 + 10
n is even so we can write n=2k	1200424 12 5
$n^2 = (2k)^2 = 4k^2 = 2(2k^2)$	and you kind had not to be
Which meens 2k2 is an integer, so we can write 2(2k	2) A) 2p.
80, h2 = 2p which	May market
this me as h2 is even	13 41 th 1 6
	1 4 1 6 B F