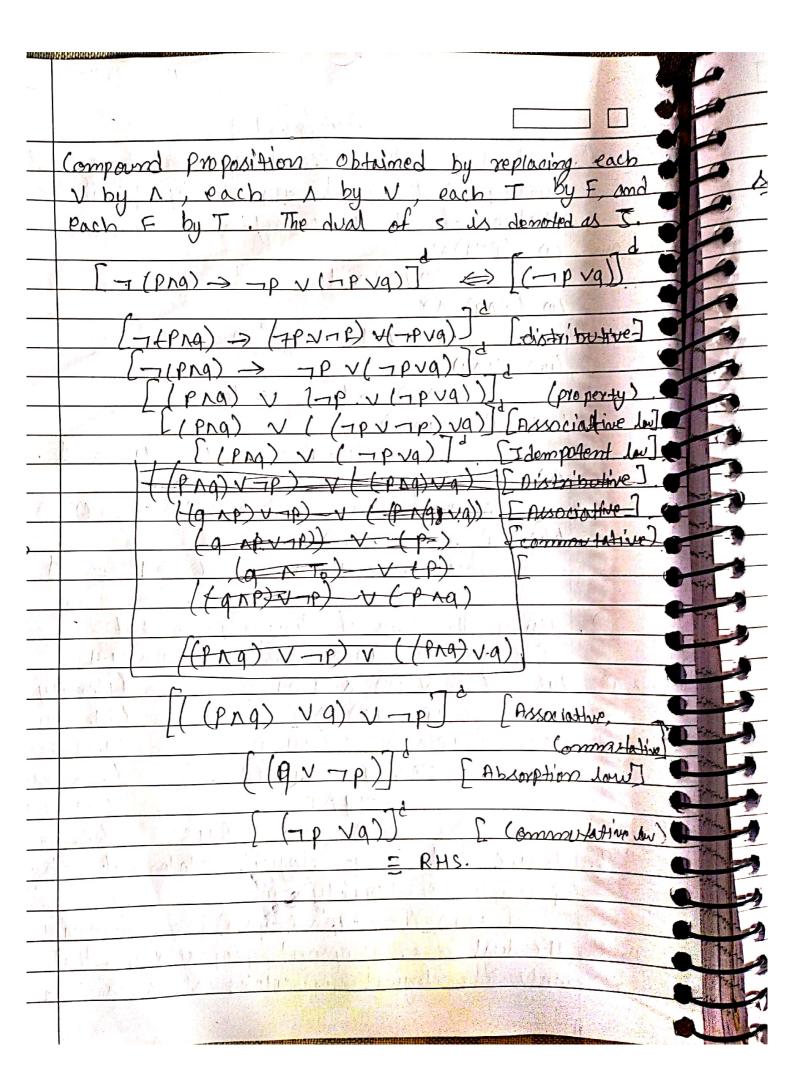
	M-2 Multu, encodes, account
	Asymment -1
7.1	let P. 9 and x be propositions having truth
	values 0,0 and I respectively. Find the truth
	values of the tollowing.
Azz.	1) (PVQ) VX
THE STATE OF THE S	
	in (Pra) ro
1. A. C.	
	$\frac{(in')}{(ono)} \rightarrow 1 = 1$
	(iv) Parana
	$0 \rightarrow 0 \rightarrow 0 = 1$
T could be	(V) (Philar)
la malay	D/ N( 10 > 0) = 0.
San I land we	Wi) P > (a > - r) (1)
-3/	0 > (0 + 0) = 0 > 1 = 1
	Cara SV- Carastanta
2.	Using the laws of logic, Prove that
	[ (TPVTa) N (FOUP) NP) => PNT9
101 <sup>m</sup> ,	QHS (-1P V-19) A PNP (identity low).
	(-pN-19) NP (idempotent law).
	(mpnp) v (mgnp) (distributive low).
The state of	DE VICTORP (inverse dans)
	- ONE (identity low)
The second	PATA = RHS (Commentative du)
3.	Define dual of a logical statement. Verity the
	paraciple of wality too
	[-(PNa) ->pV(pVa)] -> (pva)
3 Ams	The dual of a Compound proposition that compains
	only the logical operators V. A. and I is the
الم	



04.	Do Gran / 12 1 2 1 1 1 1 (10 10) 4 (10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Define tautology. Show that (Pva) A (P-x) M(q-x)] is a tautology by Constructing touth table.
Soin	The Statement which is always true for any
9	Condition is Called tautology.
8	C I A D C C I A D C C C C C C C C C C C C C C C C C C
	P 9 8 PV9 P->x 9->x and chand and.
	1 b which had to the terms of t
A WALL	101.1 1 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0	1 0 1 1 0 0 1
Carlotta III	1 0 0 100 0 1
	D D D MAN MED DE LA
<b>Q</b>	Hence the given statement is always true for any in-
5 1W	amangement 1, 9, 1 175 auco travitating.
X QS.	
4	(i) -(PVq) (-1PT-19)
4	1430 to the many of the more of the more of the second of
4	$(11)$ $-1$ $(P \land Q) \iff (-1P \lor -1Q)$
i ci	$\neg (0) \Leftrightarrow (\neg P \uparrow \neg a).$
4	-1 (-1(PV9)) [det ].
	7 (7p 1/9) [de morgen's]
3	(-1p & 1 -19) [ def not NAND].
(i)	7(PTQ) (-1P + 7q). ['def' of NAND]
Smalle w	7 (7 ( + /14/1/
,	THE MOR
	7P 179.

Qb. Show that RVS follows logically from the premise	4.
CVD, CCVO) >H, TH > (ANTB) and	
$(A \land \neg B) \rightarrow (R \land C)$	11
using step step fremises.	•
1 (CVD) > 7H	0
2 (AN-18) P2	
$\frac{3}{4} - \frac{1}{4} = \frac{3}{4} - \frac{3}{4} = \frac{3}$	-
4 1,2,3 (CVD) - (RVS) Rule of sy	Magism
) (\))	10
6.0 5 (RVS) Moders To	llens -
de grand Alanda Maria Ma	
0 16 16 16 16 16 16 16 16 16 16 16 16 16	
Q7. Test the validity of the following argument: if Ravi studies, then he will pass in DMS. If	
it Ravi studies, then he will pass in DMS. If	
have does not play concret them he will chial	- 0
have failed in 12MS. Therefore, Kaly Played Cricke	t
Houses: P -> May Studies	
9 > He will pass in ons	
8 -> Raw plays cricket	
promises (1997)	-
$P_1 = P \rightarrow Q \qquad P_2 = \neg V \rightarrow P \qquad P_3 = \neg Q$	
(D.: , 8 M) (D of the 1 )	
using step step Rule	-
P-1	-
2 P-3	-
3 1,2 Modes	torrens or
4 P-3	
5 3,4. Modus	tallon -
: Ravi Played Cricket this argume	nt is
Ravi played Cricket this argume valid.	-

	08.	Find whether the following argument is valid or
		Mot:
	19	if a triangle has two equal sides then it is isoceles.
1		it a triangle is isoccles, then it has two equal angles.
7		The angles triangle ABC does not have two equal angles
TO THE REAL PROPERTY.		Therefore, ABC does not have two equal sides.
1	Ans.	P > A has two equal sides.
1		9 > It is isocale
1		r > it has two equal angles.
0	A STATE OF THE STA	Dremies:
		P= P>q P= 19 P= -18
10		si. ABC does have two equal sides (-1P).
		using step step hule
7	1	
4	2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	3	1,2 Par Aule of Gulogian
0	4	P-3 P-3
0	9	3,4. Moder follers  Angument is valid.
	Angle See	Henre green
5	William W.	Consider the following statements with a set of all real numbers as the universe.
	Q9.	Consider the following statements
		all real numbers as the viewerse.
		0(1) 1 x > 0 , 9(10). 12 20,
		$S(x): x^2-3>0$
	Converse	Determine the truth values of the following.
7	(a)	Determine the from the $A$
		Let $\chi = 2$ . (2>0) $\Lambda$ (4>0)
•		T AT.
3		= True.

	414
(P)	$\forall x, p(x) \Rightarrow q(x) = \neg p(x) \vee q(x)$
	9(x): x >0 is always true.
18 mar ( 9 )	7 Plx) V (True)
Alan Arm	True!
(c)	+x, 9(x) → S(x) = -19(x) V S(x).
23 (X) /s	q(x) is always true.
	$F \lor S(x) \equiv S(x)$
	for x=0
	S(0) 5 0-3 > 0
(4)	False.
(6)	ta, ra) v s(x).
51.	$(x^2-3x-y=0)$ $\sqrt{(x^2-370)}$
10.9	for $y = 0$ $(x+1)=0)$ $(x^2-3>0)$
(-9	((-u)(1)=0) V (0-3>0)
orani dun	((-a) (1) -0) V (0-3>0)
	False.
(e)	$\perp \exists \lambda, \gamma (a) \wedge \gamma (a)$
	$(2 \ge 0) \land ((2x-y)(x+y)=0)$
	408 X = 9
1-03504	p(u) is true
	Y(4) in tripe
71731	T NT I True.
Q.10.	Give a direct proof, indirect proof and proof
	by contradiction for:
	by contradiction fox: "Fox all integers K and I, if K and I are both even then K+I is even".
	even then Ktlin even".

	YK, I PEKAL is even.
	9 = K+l is even
	$g'$ ven $P \rightarrow q$ .
	(i) Direct Proof of condition.
	Assume p is true.
	Carry (8 4) STEP.
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	3 1,2 9 Models pones
	=) K and I are both even
	$\Rightarrow K = 2m$ , $J=2n$ , where $M, n \in I$
	K = 2m + 2n mark minute.
	K = 2(m+n)
	kt d is even
Jan Jir	quis true Paquis true.
	: The given statement is true by de.
1 1 1	Indirect proof: (in) Contra diction.
	P= Kand 1 are even Assume P-> 9 15 table.
1 4 m	9 - ktl is even lie pistalse
	Assume 79 is true. Kth is como od
(Sey 310)	K+1 is not even monest assume K=2m+1 m,neI
A	Jame K = 2mm 1 = 2mm+1
A MERCEN	K+1 = 2m+2n+1, but k and never be 8
•	= 2 (m+n) +1 K+1 13 odd
Property	50 dd - 50 dd - 2 (mm) +1
	IP is true.   m= (x+1)-1 is odd
	79 > 10 true and 1 9 is take
•	hence P -> of istace
	The given statement is true by indirect part

	The section of the se
	PVA
	10
Q11.	Establish the validity of the following argument using
	Establish the validity of the following argument using the rules of inference:
	P, P>Y, P> (qv-v), -qv-s:.s.
y	P P-> 8
2	P-1
3	1,2 Modes pones.
y	P-3 P-3
2	2,4 (9V-Tr) Modes pones.
6	5,3. 9 Rule of disjunctive Syllogist
7	(79 V 78) P-3
8	6,7. Disjunctive amplif
	: given argument is not valid.
	The Mary Manda Manda Many Many More .
Q12.	Prove by mathematical induction that for all
Ø12.	Prove by mathematical induction that for all positive integers n > 1
\$\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Prove by mathematical induction that for all positive integers $n \ge 1$ , $(2n-1)^2 = n(2n-1)(2n+1)$
	$1^{2} + 3^{2} + 5^{2} + \cdots + (2n-1)^{2} = n(2n-1)(2n+1)$
	$1^{2} + 3^{2} + 5^{2} + \cdots + (2n-1)^{2} = n(2n-1)(2n+1)$
	$1^{2} + 3^{2} + 5^{2} + \cdots + (2m-1)^{2} = \gamma(2m-1)(2m+1)$
5018 50011	$1^{2} + 3^{2} + 5^{2} + \cdots + (2n-1)^{2} = n(2n-1)(2n+1)$ proof: Consider S(n): $1^{2} + 3^{2} + 5^{2} + \cdots + (2n-1)^{2}$
5018 50011	$1^{2} + 3^{2} + 5^{2} + \cdots + (2n-1)^{2} = n(2n-1)(2n+1)$
5018 50011	$1^{2} + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $3$ $6 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 5^{2} + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 1 + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 1 + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 1 + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$ $5 + 3^{2} + 1 + \dots + (2n-1)^{2} = n(2n-1)(2n+1)$
501 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$1^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2} = m(2m-1)(2m+1)$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots +$
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501 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1? + 3? + 5² + + $(2n-1)^2 = n(2m-1)(2n+1)$ 3  Proof: Consider S(n): $1^2 + 3^2 + 5^2 + + (2n-1)^2$ Casic step: S(1) = $1^2 - 1(1)(3)$ is true Clearly.  So it is resified that s(n) is true for $n=1$ .  Induction Step:  Describe S(k): $1^2 + 3^2 + 5^2 + + (2k-1)^2 = k(2k-1)$
501 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$1^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2} = m(2m-1)(2m+1)$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 5^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + 3^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 3^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots + (2m-1)^{2} + \dots + (2m-1)^{2}$ $2^{2} + 1 + \dots + (2m-1)^{2} + \dots +$
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Section of the Sectio	2K <sup>2</sup> +2K+3K+3 <sup>2</sup> K+2-1 2K(3K+1) 3(K+1)
	2K+2K+3K(KH)
	2K(3K+1)
	2 2
	$S(KH) = 1^2 + 3^2 + 5^2 + (2K-1)^2 + (2KH)$
	. 2
	- K (2K-1) (2KH) + (2KH)2
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	= (2KH) (K(2K-1) + 3(2KH))
	= (2k+1)(k(2k-1)+3(2k-1))
	3
	$= (2k+1) (2k^2-K+6k+3)$
	3
	$-12k+1)(2k^2+5k+3)$
•	3
3	= (2K+1) (K+1) (2K+3)
•	3
•	- (K+1) (2 (K+1)-1) (2 (K+1)+1)
•	The state of the s
-	it is proved that S(K+1) is true.
	Therefore, by the principle of mathematical induction,
	Therefore, by the primarile of maneria.
	s(n) is true for any nz1
	A CONTRACTOR OF THE PARTY OF TH
0.13.	prove by Mathematical induction
2	13 + 23 + 23 + 22 + 23 + 23 + 23 + 23 +
Soin	proof: 9
	Basic step: 3(1) = 13 = 12(1+1)2 is true clearly
	so, it is wertified that s(n) is true for n=1.
	Tadiontian (to 1:
	Induction Step:  Assume SO(): $1^3 + 2^3 + 3^3 = + 2^3 = \frac{1}{4} \times 2^3 \times 10^2$
	mornie sur l'alla de l'all
9	Is true.

6403 ( ) 44 /	S(K+1) = 13 + 23 + 33 12 + (K+1)3
	D D
1111	$= k^{2} (k+1)^{2} + (k+1)^{3}$
	4
die	(K+1) <sup>2</sup> + 4 (K+1) <sup>3</sup>
AND THE PARTY OF T	
1 Them	(K+1)2 (K2+4(K+1))
with continued the little	
(1)	(K+1)2 (K+4).
THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COL	
()	$ \frac{(k+1)^2 (k+2)^2}{4} $
	4
	$(k+1)^{2} (k+1)+1)^{2}$
	The state of the s
ladus ch	It is proved that S(KH) is true.
	Dy principle of mathematical induction sin) is
	true for any. m=1. or nen.
A	Instance the property adeque, and por
Q14.	prove by mathematical induction:
	$\frac{1}{2.5} + \frac{1}{5.8} + \frac{1}{(2.5)(1.2)} + \frac{1}{(2.5)(1.2)} = \frac{1}{(2.5)(1.2)}$
<b>N</b> 4	P. (3111 2) 62179
101m:-	det s(n) = 1 + 1 1 (2n-1) (3n+2)
	(317,4017)
-Basic step	3(1) = 1 = 6+4 it is true clearly.
10 10 10 10 10 10 10 10 10 10 10 10 10 1	it is uprified that S(m) is true for m=1.
- 3 1 C	
Induction ste	0000
2 12 3 Y	GR O'GRIG O'LL
	is true.

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S(K+1) = 1 + 1 (3K-1)
                                    (3K-1) (3K+2) (3K+2)(3K+3)
                        6K+4 (3K+2)(3K+5)
                         =\frac{1}{(3k+2)(k+1)}
                             6(KH)+4
     it is proved that S(KH) as type.
      :. by the principle of MI, S(m) is true for any n >1.
 Q15 Prove by Mathematical induction that:
      1.3+2.4+3.5+ -- + n(n+2) = 1 n(n+1) (2n+7)
      den s(n)= 1.3+2.4 -- +n(n+2).
Basic step. S(1) = 1.3 = 1 (2) (3) it is true chearly.
Inductions s(x) - 1.3 + 2.4 -- K(K+2) is true (Asome)
       S(K+1)= 1:3+2.4 --- K(K+2) + (K+1)(K+3) is tous
                   - 1 K (KH) (2K+7) + (K+1) (K+3)
                1 (K+1) (2K2+13K+18)
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