

There exists a positive integer that is (1) odd. Expressoria

If de is odd, then the is not divisible

 $\forall x \in \{9(x) \rightarrow \sim + (x)\}.$

No odd integer is divisible by 2.

 $\forall x \ \{ \ \gamma(x) \ \land \ f(x) \}.$ $\forall x \ \{ \ \gamma(x) \ \rightarrow \ \sim + (x) \}.$

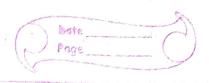
There exists an odd integer divisible

[(x) A (x) ? x E

If se is odd and se is perfect square then divisible by 3

Tx 3((x) / x(x)) -> S(x)]

			(-1) dogsamming Date 1 1 Page RANKA
	*		The state of the s
	m		Date Page
		*	Negation of quantified Statements
*		->	Negation of a quantified Statement change the quantifier and negate the oxiginal Statement as mentioned below:
		\	negate the oxiginal Statement as
1			$\sim \forall x: p(x) \equiv \exists x: \sim P(x)$
		<u> </u>	$\sim \exists x : P(x) \equiv \forall x : \sim P(x)$
4	03->		
		*	Properties of quantifiers.
1		(i)	$xyyxE\leftarrow(x)qxY\equiv(x)y\leftarrow(x)qxE$
	and the second s		$\exists x p(x) \rightarrow \forall x q(x) \equiv \forall x (p(x) \rightarrow q(x))$
1		((11)	$(x) P(x) V Q(x) = \exists x P(x) V \exists x P(x)$
eti			$\forall x [P(x) \land q(x)] = [\forall x x(x) \land \forall x q(x)]$
			$[A \times b(x) \wedge A \times d(x)] = A \times [b(x) \wedge d(x)]$
1		(14)	(x)q x + = (x)q - xE)
		7	2
		200	



1 /1.

Note: - In general, the negation of a
quantitied predicate is logically
equivalent to the proposition obtained
by replacing each + by 7 and vice verya.
as well as replacing the predicate
itself by its negative.

	Statement	Nega bon
->	all true to P(x)	Jx[~P(x)]
		at leaset one falle
->	att least one false	TX P(x) all tous
	att least one false Fx(~P(x))	
→	all false $\forall x (\sim PCX))$	Fxp(x) at least
	V	Ono is toue.
\rightarrow	at least one is true	4x[~P(x)] all
	(x) 9 x E	false.
		[-)

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