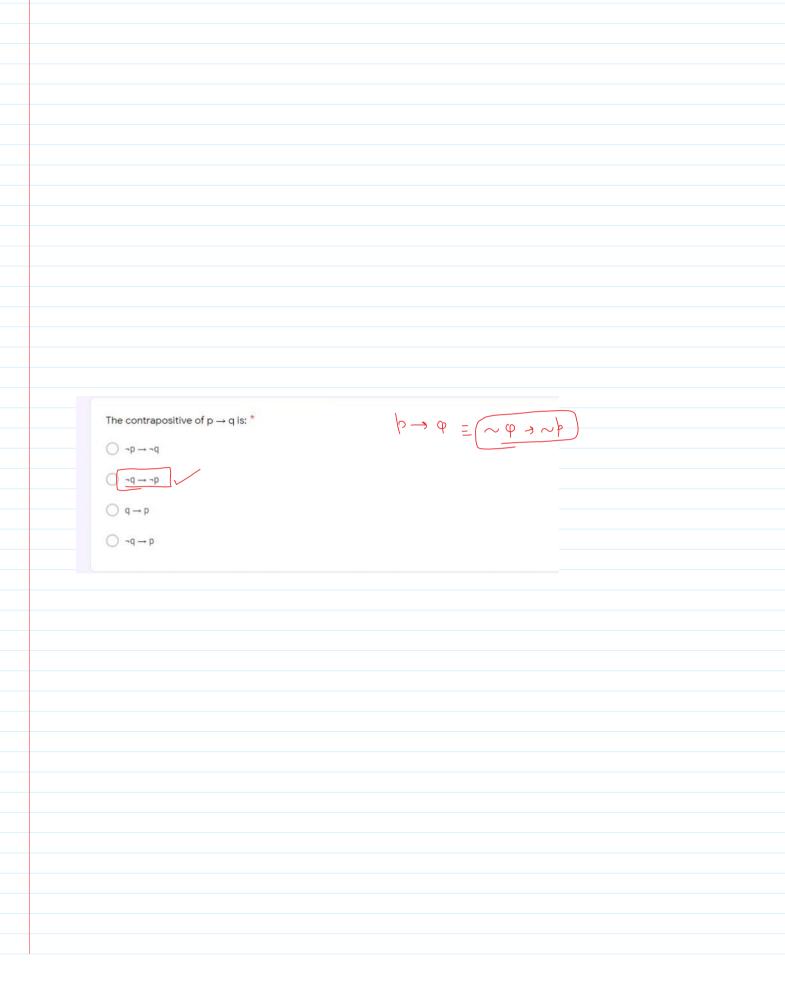
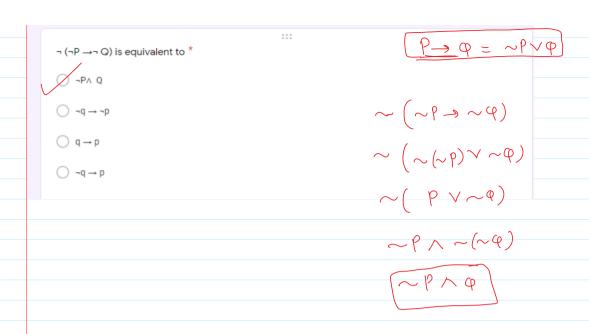
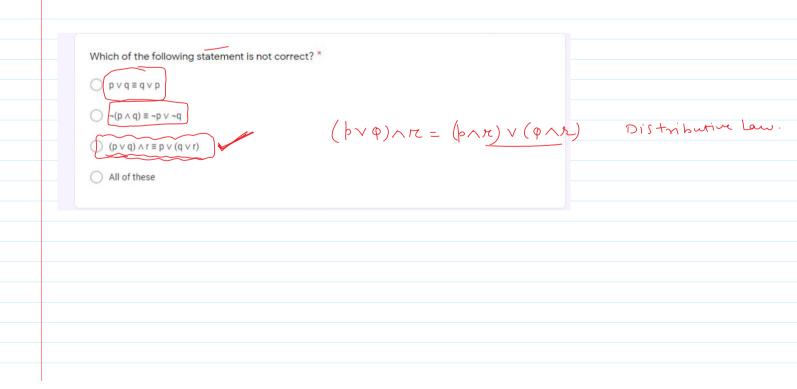
Tuesday, August 31, 2021 9:03 AM	
Which of the following statement is not a proposition? *	
○ 2+3=5 (丁)	
May you live long!	
○ 2+2=4 (▼)	
○ The first odd prime number is 3. ( ⊤ )	
The motoda prime name to 0.	
If p is any statement, then which of the following is a contradiction? *	
in p is any statement, then which of the following is a contradiction:	b   ~ b   b ~ b
O p ^ - p	
○ pvp×	
○ p v~p ×	FTF
	X
○ None of these ×	







	$\sim (p \land \varphi) = \sim p \lor \sim \varphi$
What is the negation of the statement "Sam is poor and happy"? *	
Sam is poor and unhappy.	
Sain is poor and unnappy.	
Either Sam is rich or unhappy	
Either Sam is poor or unhappy	
Sam is rich and happy.	
Sum o non and nappy.	

Which of the following statement is false? (a) If 1+1=2, then 2+2=5

- (b) If  $\frac{1+1=3}{\Gamma}$ , then  $\frac{2+2=4}{T}$  (T)
- (c)If 1+1=3, then 2+2=5
- (c) If pigs can fly, then 1+1=3 E E (T).

	þ	q	p-> q	
	T	T	T	
	T	F	E	
	F	T	T	
(	1 F	F		

How many rows will be there for the truth table of  $p_1 \lor p_2 \lor p_3$ 

- (c) 16 (d) 32

Total no of rows = 2

What is the negation of the statement  $\forall x(\underline{x}^2 > x)$  (a)  $\exists x(x^2 \le x)$  (b)  $\exists x \sim (x^2 \le x)$  (c)  $\exists x \sim (x^2 < x)$  (d)  $\exists x(x^2 < x)$ 

When to proof P $\rightarrow$ Q true, we proof P true and Q is also true then, what type of proof is this? *
trivial proof
○ Contrapositive proof
○ Vacuous proof
Mathematical Induction

Which of the following statement is the negation of the statements  9 is even and -11 is not negative  9 is even and -11 is negative  9 is odd and -9 is negative  9 is even or -11 is not negative	"9 is odd or -11 is positive"?	
Which of the following theorem can be proved using direct proof?  Of the is an integer and 3n + 5 is odd, then n is odd. Contrational number that the contraction of the is an irrational number of the contraction of the irrational number of the i	ositive	

Let P (n) be the proposition "If 4>2, be used?  Direct proof  contradiction proof  rivial proof	then (4) n $\geq$ (2) n To show P(2) is true, what kind of proof is to $P(n): \text{ If } 4>2 \text{ then } (4)^n > (2)^n.$ $P(2): \text{ If } 4>2 \text{ then } (4)^2 > (2)^2.$ $P(2): \text{ If } 4>2 \text{ then } (6>4)^2.$	

The statement  $\neg p \land \neg q$  is logically equivalent to

- pˬq
- O ¬p→q
- ( p→¬q)
- (pvq)

A counterexample to the universally quantified statement  $\forall x (x^2 < 3)$ , where the domain consists of all real numbers, is

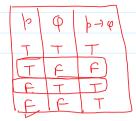
A. 
$$x = 0$$
—

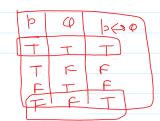
B. 
$$x = -1$$

C. 
$$x = 1$$

$$D. x = -2$$

4 (3





Which of the following statements is FALSE?

A. If 1+1=3 if and only if Monkeys can fly

B. If 0>1, then 2>1. (True)

T C. 2+2=4 if and only if 1+1=2 ( True

D. If 1+1=2, then 2+3 < 5

If R(x, y, z) denotes " $x^2 + y^2 = z^2$ " then which of the following is correct?

(a) R(1, 2, 3) has truth value = true  $\times 1^2 + 2^2 = 1 + 4 = 9 = 5 = 9$ 

(b) R(1, 0, 0) has truth value = true  $\times$   $|^2 + 0^2 = 0^2 = 0$  | = 0 | = 0 | = 0

(d) R(0, 0, 1) has truth value = false

(~PV~Q) V (~PV~Q)

(~PV~Q) V (~QV~Q)

(~PV~Q) V (~QV~Q)

(~PV~Q) (ontigury

(~PV~Q) (ontigury

(~PV~Q) (ontigury

(~PV~Q) (ontigury

Let P: We should be honest. Q: We should be dedicated., R: We should be overconfident. Then 'We should be honest or dedicated but not overconfident.' is best represented by?

- a)  $\sim$ P V  $\sim$ Q V R
- b) P ∧ ~Q ∧ R
- c) P V Q ∧ R
- d) P V Q ∧ ~R

PVPN~R

If x and y are integers of opposite parity (one odd another even) the 5x+5y is

- a) Always Odd
  - b) Always Even
  - c) Odd for some values and even for other values
  - d) Can not be decided

$$x=5$$
,  $y=2$ 

$$5(x+y)=5(5+2)$$

$$=5\times 1=35$$

$$x=3$$
,  $y=2$   
 $5(x+y)=5(3+2)=5\times5=2t$