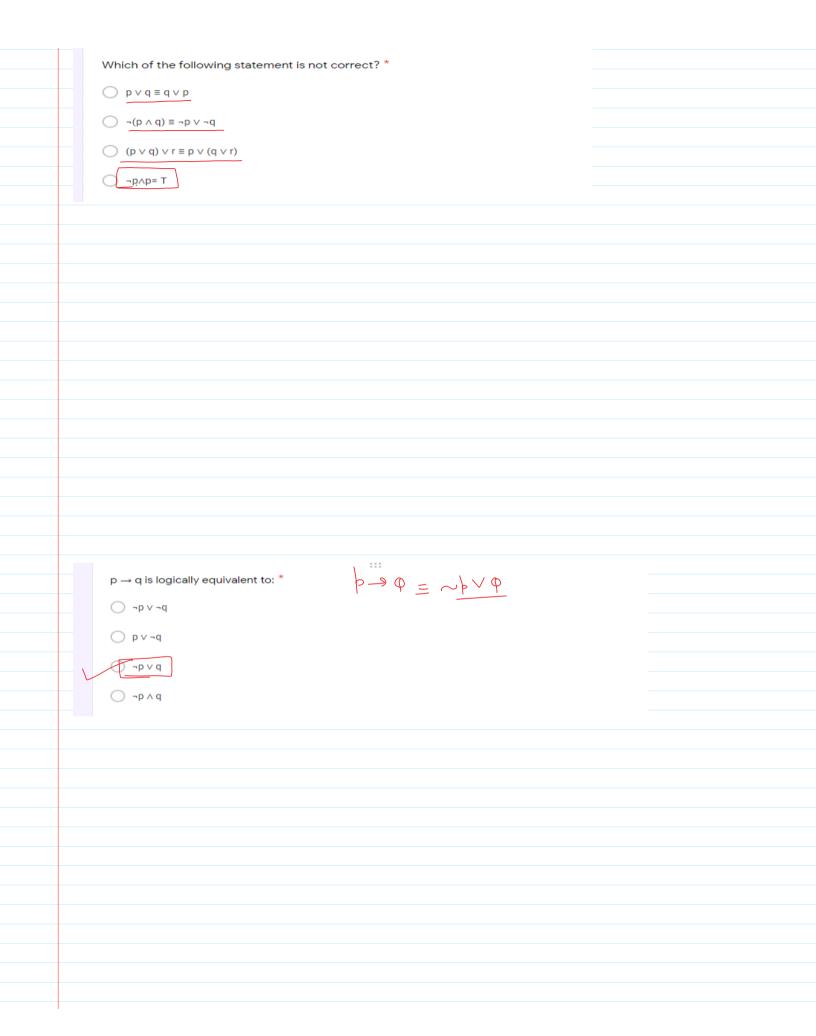
If I love cricket then I am in Bangalore	P>p "If I love cricket then I
If I am in Bangalore then I love cricket	Bangalore.
O If I am not in Bangalore then I don't love cricket	Bangajore.
If I don't love cricket then I am in Bangalore	
(D. O) is sent about *	( 6 9 0 )
$\neg (P \rightarrow Q)$ is equivalent to *	$\sim$ ( $r \rightarrow \star$ )
○ P∧ ¬ Q	
$\bigcirc$ ¬q $\rightarrow$ ¬p	( ) ) \( \alpha \) \( \alpha \) \( \alpha \)
$\bigcirc$ q $\rightarrow$ p	~ (~p) /
	$ black \wedge (\sim \varphi) $
$\bigcirc$ ¬q $\rightarrow$ p	•



Let R(x, y) denotes the statement x = y - 5. Then, the truth values of the propositions R(5,0) and R(0,5) are respectively.

- A. True and True
- B. True and False
- C. False and True
  - D. False and False

How many rows will be there for the truth table of  $p_1 \lor p_2 \lor p_3 ... \lor p_5$ 

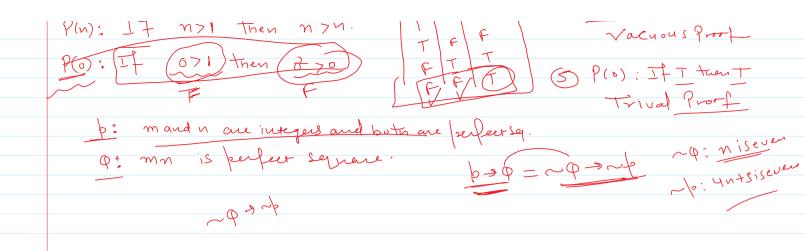


- 🕏 A. 4
  - B. 8
  - C. 16
  - D. 32

$$2^{n} = 5 = 32$$

Let Q(x, y) denote the statement "y Chandigarh) ii) Q(India, New Delhi	v is the capital of x." What are the	se truth values? i) Q(Punjab, * iv) Q(Florida, Miami)	
T, F, T, F  T, T, F, T  T, T, T, F	II) III) Q(Massachusetts, Boston)	IV) O(FIORIDA, MILAMI)	
When to proof P→Q true, we proof P true and Q	::: I is also true then, what type of proof is this? *		
Contrapositive proof Trivial proof vacuous proof			

The second secon	
Which of the following statement is the negation of the statements "4 is odd or -9 is positive"?	
4 is even or -9 is not negative	
4 is odd or -9 is not negative	
4 is even and -9 is negative	
4 is odd and -9 is not negative	
	1 Direct Proof
Which of the following theorem can't be proved using  Multiple choice	n is godd - n² is odd
contrapositive proof? $M = 2 \frac{1}{2}$	77 13 4000
	6)
The state of the s	3n+zis add mis old
O If n is an odd integer, then $n^43$ is odd. $\rightarrow 0 = \sim 0 \rightarrow \sim 0$	Contrabositive bout
If m and n are integers and both are perfect squares, then mn is also a perfect square.	) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
p. Unts is	(3) 12,53, are irration
Sum of two odd integers is even.  P(o) is true.  P(o) is true.	Contrapositive prof 3) J2, J3, are irrational no-
Add option or Add "Other" = -9->	Contradiction Proof.
10/9/pop	TO SCI, DET (ET)
	y P(o): If (F) then (F)
P(n): It n>1 then n>n.	Vacuous Proof
1 Oct II Cost / Cost / Cost	



Which of the statement is not true?	
Product of two natural numbers is a natural number. ( 7 )	2.3
Product of two irrational number is irrational.	52 x 52 = (2)
Product of two rational numbers is a rational number.	1×3=(3)
Product of two real numbers is a real number.	

The statement p/q is logically equivalent to ○ p∧-q × \_\_\_ ~ (~p/~q) ~(~p) ~~(~q) ○ ¬ ( p∨q) ×

> $p \to (q \lor r)$  is equivalent to A.  $(p \to q) \to (p \to r)$ B.  $(p \to q) \lor (p \to r)$ C.  $(p \to q) \land (p \to r)$ D.  $(q \to p) \lor (p \to r)$

1		
	Which of the following statements is equivalent to "If $x = 3$ , then $x^2 - 9 = 0$ "?	
	A. If $x^2 - 9 = 0$ , then $x = 3$	
	B. If $x \neq 3$ , then $x^2 - 9 \neq 0$	
	C. If $x^2 - 9 \neq 0$ , then $x \neq 3$	
	D. If $x^2 - 9 = 0$ , then $x \neq 3$ .	
	Find the equivalent statement of $\exists x P(x) \{\text{Existential quantification}\}\$ , where Domain $D = \{x_1, x_2, x_3, \dots, x_n\}$	
	A. $P(x_1) \wedge P(x_2) \wedge P(x_3) \wedge \dots \wedge P(x_n)$	
	B. $P(x_1) \vee P(x_2) \vee P(x_3) \vee \dots \vee P(x_n)$	
	$C. P(x_1) \to P(x_2) \to P(x_3) \to \cdots \dots \to P(x_n)$	
	$D. P(x_1) \leftrightarrow P(x_2) \leftrightarrow P(x_3) \leftrightarrow \cdots \dots \leftrightarrow P(x_n)$	

	***	
~ (p ∧ q) ∨ (p ∨ q) is a		
☐ Tautology		
Contradiction		
Contingency		
None of the above		
. $p \leftrightarrow q$ is logically equivalent	ent to	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	
A. $(p \rightarrow q) \rightarrow (q \rightarrow p)$	$B.\ (p \to q) \lor (q \to p)$	

•	
Let $Q(x)$ is the statement " $x + 1 > 2x$ ", where domain is the set of integers then identify the correct statement.	
A. Q(0) has truth value = false	
B. $\exists x \ Q(x)$ has truth value = false	
C. $\forall x \ Q(x)$ has truth value = false	
D. $Q(-1)$ has truth value = false	