T3 G1 27 Jan 2022

27 January 2022 15:03

"It is necessary (p) to wash the boss's car (q) to get promoted"

Write the converse, inverse and contrapositive of the above statement.

If you wash the boss's car (p) then you will get promoted (q)

Converse :- $q \to p$:- If you get promoted then you wash the boss's car.

Inverse :- $\sim p \to \sim q$:- If you do not wash the boss's car then you will not get promoted.

Contrapositive $\sim q \to \sim p$:- If you will not get promoted then you do not wash the boss's car.

"You can access the website (q) only if (p) you pay a fee."

⇓

If you pay a fee then you can access the website.

Converse :- $q \to p$:- If you access the website then you pay a fee.

Inverse :- $\sim p \to \sim q$:- If you cannot pay a fee then you cannot access the website

Contrapositive $\sim q \to \sim p$:-

"Mohit will go swimming (q) unless (p) the water is too cold"

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If the water is too cold (p) then Mohit will not go swimming (q)

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If the water is ~~not~~ too cold then Mohit will go swimming.

Inverse :→ $\neg p \to \neg q$:→ If the water is not too cold then Mohit will go swimming.

Converse of the statement "If you are honest, then you are respected."

a) If You are honest then he is not respected.

b) If You are not respected than you are not honest.

c) If you are not honest then you are not respected.

d) If you are respected then you are honest.

What is the contrapositive of the conditional statement? "The home team misses whenever it is drizzling?"

a) If it is drizzling, then home team misses

b) If the home team misses, then it is drizzling

c) If it is not drizzling, then the home team does not misses

d) If the home team wins, then it is not drizzling

If it is drizzling then the home team misses.

5. What is the converse of the conditional statement "If it ices today, I will play ice hockey tomorrow.

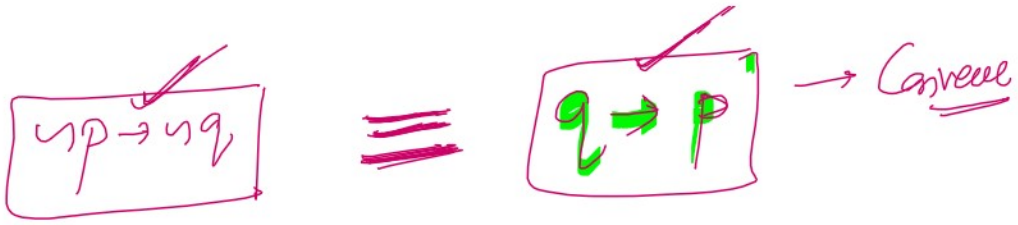
a) "I will play ice hockey tomorrow only if it ices today."

b) "If I do not play ice hockey tomorrow, then it will not have iced today."

c) "If it does not ice today, then I will not play ice hockey tomorrow."

d) "I will not play ice hockey tomorrow only if it ices today."

→ Converse



7. What are the inverse of the conditional statement " A positive integer is a composite only if it has divisors other than 1 and itself."

a) "A positive integer is a composite if it has divisors other than 1 and itself."
b) "If a positive integer has no divisors other than 1 and itself, then it is not composite."
c) "If a positive integer is not composite, then it has no divisors other than 1 and itself."
d) None of the mentioned

Or If a positive has divisor other than 1 and itself then it is a Composite.

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