



Start Quiz 1 !!

post questions

R

help each other

on teams!

Questions ?!

Ask away!

conditional statement is a specific thing

open sentence = "almost a statement"

= "pre-statement

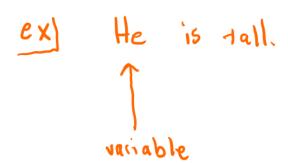
= a sentence whose truth value does not exist until you plug in variables

ex) $\chi^2 \geq 0$ open sonthie

070 true

4920 true

[34] > 0 3,25 false



Example 1.3. The sentence " $cos(\theta) = 1$ " is an open sentence.

The sentence "t + 3 > 7 is an open sentence.

The sentence "She is 6 feet tall." is an open sentence. (What is the "variable" in this open sentence?)

"she is the variable

Conditional Statement (if-then)

$$P,Q$$

If P then Q
 $P \Rightarrow Q$ ($P \Rightarrow Q$ alt. notation)

Vocaously True

Reservent where P is false

P => Q is a kind of "logical promise"
11 I promise that if P is true then Q is true
When is a promise false or broken?
ex) if you est your veggiss, then you get ice creem.
when would this be a lie?
eats his reggles, but no ice cream is P is True but Q is Talse
is this promise broken/false when
doesn't eat veggies, still gets ice cream Promise is true P => Q true Vacquously Vacquously
true promise is true! P is false, Q is false [P>Q true
does eat leggies, gets ice cream promise is true!
P is T, Q is T P⇒Q the

;	P	Q	P=>Q
	7	T	T
	٢	F	F
ŧ	=	T	T
	F	1 7	T

P)	Q	PGQ
	7	7
Т	F	T
F	T	F
F	F	T

Our main logical operators

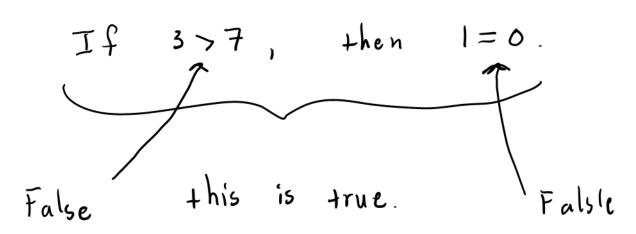
7 negation

\wedge	and	

< I	
\bigvee	70

P	Q	PAQ
T	†	T
7	F	F
F	T	F
F	F	F

(+) xor



vacuously true