TH-G Geometry Week 6

If Noah goes to the convenience store, then he will get his weight in coke.

hypothesis

conclusion

Good definition: true forwards and backwards

If , then → conclusion

↳ hypothesis

Converse - rearrange the order of hypothesis and conclusion

If Noah got his weight in Coke, then he went to the convenience store.

false

If you did that one more time, then no snack packs for you!

hypothesis

conclusion

Converse

If you there are no snack packs for you, then you did it one more time.

false

If Billy gets $248, then he will buy 248 dollars worth of pudding.

hypothesis → conclusion

If Billy bought 248 dollars worth of pudding, then he got $248. true

biconditional statement

hypothesis, conclusion → conclusion, hypothesis

if both true — "if and only if"

Billy gets $248, if and only if he buys 248 dollars worth of pudding.

If it is October 30th, then it is the premiere of Mandalorian Season 2.

true

Converse:

If it is the premiere of Mando Season 2, then it is October 30th. true

It is October 30th if, and only if, it is the premiere of Mandalorian Season 2.

If $|n| = 15$, then $n = 15$ (no) $n = -15$ too

If $n = 15$, then $|n| = 15$ ∴ no "if and only if"

If you go to Dunkin, you better get me a donut.

If you get Nate a donut, then you went to Dunkin. false

If you improperly grade his quiz, then Chris will slap you in your stupid, stupid face.

If Chris slaps you in your stupid, stupid face, then you graded his quiz wrong. false

If Nate goes bald, then he will get a sweet hair piece.

If Nate gets a sweet hair piece, then he went bald. false

If you have 3 feet, then you have a yard.

If you have a yard, then we have 3 feet.

You have 3 feet [if, and only if] you have a yard

2.3 Detachment Reasoning

hypothesis

If you are in Nate's class, you will laugh hysterically.

assume true ↗ conclusion

Give hypothesis → Return the conclusion

However,

Give conclusion you cannot return the hypothesis

Hannah is in Nate's class

→ she will laugh hysterically

Logan is laughing hysterically

you cannot conclude →

If you get in Will's face, he will fight you.

Charlie got in Will's face
Will fought him

Will fought Jonathan
no conclusion

Transitive Property → Syllogism

$A \longrightarrow B$

IF Logan is angry, he throws good China against the wall

$B \longrightarrow C$

IF Logan throws good China against the wall, his mom will end him

$A \rightarrow B \rightarrow C$

$A \rightarrow C$

Logan just got angry.
His mom will end him

Quiz 4 due today HW

Quiz 5 due Oct 8th 2-1 evens
2-2 evens
2-3 evens

Ch 1 Test Oct 8th Supplemental packet (sat)
Quiz 6 → handed out on Oct 8th