

Conditional Statements

- "if-then" statements
- 2 parts
 - hypothesis (p) \rightarrow basic condition to be met
 - conclusion (q) \rightarrow result/implication
- Symbolically
 $p \rightarrow q$ (if p , then q)

EX → Hypothesis & conclusion?

1) If a duck stands still, then you can catch it by the bill.
hyp. conc.

2) If I wear Air Jordan's, then I will be able to jump like
Michael Jordan.
hyp. conc.

3) If I have an iPhone, then I will be trendy.
hyp. conc.

EX → Write as a conditional statement

1) Scoring more points than the other team results in a win

→ If I score more pts than the other team, then I will win

→ If my team gets more pts, then we will win

2) Eating Kraft Macaroni + Cheese will leave you satisfied

→ If I eat Kraft Mac + Cheese, then I will be satisfied

→ If you eat Kraft Mac + Cheese, then you will be satisfied

→ If you are satisfied, then you ate Kraft Mac + Cheese

- Other related statements

→ negation (\sim) → opposite of statement

→ converse ($q \rightarrow p$) → switch hypothesis + conclusion

→ inverse ($\sim p \rightarrow \sim q$) → negate both hypothesis + conclusion

→ contrapositive ($\sim q \rightarrow \sim p$) → negate converse (equivalent statement to original conditional statement \Rightarrow both true OR both false)

EX → Write converse, inverse, & contrapositive of the following:

If UK wins, then Mr. Higgins is happy

Conv. → If Mr. Higgins is happy, then UK wins

Inv. → If UK doesn't win, then Mr. Higgins is not happy

Cont. → If Mr. Higgins is not happy, then UK did not win

HW : p. 93 → 6-30 even