Ch 2.5 If - Then statements

IF - the hypothesis   THEN - conclusion

Ex1) Identify the hypothesis and conclusion.

a) If I pass the driving test, then I will get my license.

b)If I sleep through my alarm, then I will miss the school bus.

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Ex2) Write an if - then statement:

a) Every game on my computer is fun to play.

b) Every duck on the pond is hungry.

c) I will go running if it doesn't rain.

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Write an If-then statement:

1. All teachers at GHS have taught for at least 5 years.

2. I will buy the CD if it costs less than $15.

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Deductive Reasoning - uses facts, definitions, accepted properties, and laws of logic to make logical arguments.

Law of Detachment - If the hypothesis of a true if-then statement is true, then the conclusion is true.

Ex3a) If you wash the cotton t-shirt in hot water, then it will shrink.

What can you conclude if you wash your t-shirt in how water?

Ex3b) If you are late for your interview, you will probably not be offered the job.

What can you conclude if you are late?

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Law of Syllogism - if the conclusion in one statement is the same as the hypothesis in another and are true, then the other hypothesis and the other conclusion are true, too.

Ex4a) If it is snowing, then we won't go out for supper. If we go don't go out for supper, then we will have a frozen pizza.

If it is snowing, then we will have a frozen pizza.

Ex4b) If Jane goes to the movies, then Tom will go to the movie. If Tom goes to the movie, Bill will go to the movie.

If Jane goes to the movies, then Bill will go to the movies.

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Try. If the rain becomes sleet, the roads will ice over. If the roads ice over, then school will start late.

Write the if - then statement that follows from the pair of true statements:

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