(10 points)

(M) No smoke without fire (1/3)

Think about the meaning of the following sentence:

     (1) The 2010 Winter Olympics were in Canada.

Assuming that we only know sentence 1 to be true, is sentence 2 necessarily true?

     (2) The 2010 Winter Olympics were in Vancouver.

The answer is no. Assuming we only know sentence 1 to be true, the 2010 Winter Olympics could have taken place in any Canadian city, but not necessarily in Vancouver.

Now examine the relationship between sentences 3 and 4. Assuming sentence 3 is true, is sentence 4 now necessarily true?

     (3) The 2010 Winter Olympics were in Vancouver.
     (4) The 2010 Winter Olympics were in Canada.

Now the answer is yes. Since Vancouver is a Canadian city, any event which occurs in Vancouver necessarily occurs in Canada.

The logical relationship which holds between sentences 3 and 4 is called an *entailment*. In formal terms, sentence A entails sentence B if whenever A is true, B is necessarily true. The entailment relationship is typically represented graphically this way: A ||- B.

Here are some more examples of the entailment relationship between sentences:

     (5) Shaun White is a Winter Olympian **||-** Shaun White is an Olympian
     (6) Shaun White is an Olympian **||-** Shaun White is an athlete
     (7) Shaun White won a gold medal **||-**   Someone won a gold medal

Notice that the entailment relationship must hold in the specified direction but will not necessarily hold in both directions. So, sentence 3 entails sentence 4 even though sentence 4 does not entail sentence 3.

n a c l o

(M) No smoke without fire (2/3)

Now examine the relationship between sentences 8 and 9.

(8) I did not see Shaun White win the gold medal in the 2010 Winter Olympics.
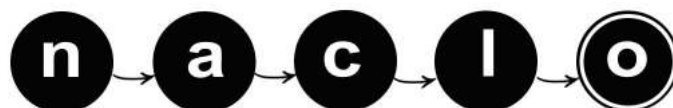(9) Shaun White won the gold medal in the 2010 Winter Olympics.

Sentences 8 and 9 illustrate a relationship called *presupposition*. In this pair of sentences, the information presented in sentence 9 is what the speaker assumes (or presupposes) to be the case when uttering sentence 8. That is, to say *"I did not see Shaun White win the gold medal"* assumes the belief that Shaun White won a gold medal. In formal terms, sentence A presupposes sentence B if A not only implies B but also implies that the truth of B is somehow taken for granted. A presupposition of a sentence is thus part of the background against which its truth or falsity is judged. The presupposition relationship is typically represented graphically this way: A >> B

Here are some more examples of presuppositions (where the first sentence in each pair presupposes the second):

(10) I regret not seeing Shaun White's gold medal run >> Shaun White had a gold medal run
(11) Shaun White continues to rule the halfpipe >> Shaun White had been ruling the halfpipe
(12) Snowboarding is now an Olympic sport >> Snowboarding was once not an Olympic sport

n a c l o

(M) No smoke without fire (3/3)

M1. **For any given pair of sentences, the entailment and presupposition relationships may or may not hold, together or separately.**

For each of the following possible combinations, your task is to provide one example of a pair of sentences with an explanation of your reasoning for proposing your pair of sentences as a valid and convincing example in each case.

a. A pair of sentences in which sentence A **neither entails nor presupposes** sentence B.

b. A pair of sentences in which sentence A **entails and presupposes** sentence B.

c. A pair of sentences in which sentence A **presupposes but does not entail** sentence B.

d. A pair of sentences in which sentence A **entails but does not presuppose** sentence B.