

**Logic I**  
**Fall 2009**  
**Quiz 1**  
**9/17/2009**

Translate the English sentences below into SL. Use the atomic sentences provided whenever possible (if the English sentence's translation is atomic, say so and explain why). If you think the English sentence is ambiguous between multiple SL translations, provide them all.

T: Tim swam in the Charles	M: Mary swam in the Charles
B: Tim's leg was eaten by a barracuda	U: Mary escaped unscathed
E: Someone swam in the Charles	F: Someone escaped unscathed.
P: The Charles is pristine	C: The MIT pool is closed
S: Mayor Menino should clean up the Charles	

1. Mary didn't swim in the Charles, and neither did Tim.
2. Mary and Tim swam in the Charles, and though Mary escaped unscathed, Tim's leg was eaten by a barracuda.
3. If the MIT pool isn't closed, then Mary didn't swim in the Charles.
4. Tim swam in the Charles only if the MIT pool is closed.
5. Tim swam in the Charles because the MIT pool is closed.
6. Neither Tim nor Mary swam in the Charles if the Charles isn't pristine.
7. Either Tim or Mary swam in the Charles if and only if the Charles is pristine.
8. At least one of Mary and Tim swam in the Charles.
9. Someone swam in the Charles yet didn't escape unscathed.
10. Mary swam in the Charles and escaped unscathed, but Mayor Menino should clean it up if the MIT pool is closed.

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24.241 Logic I  
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