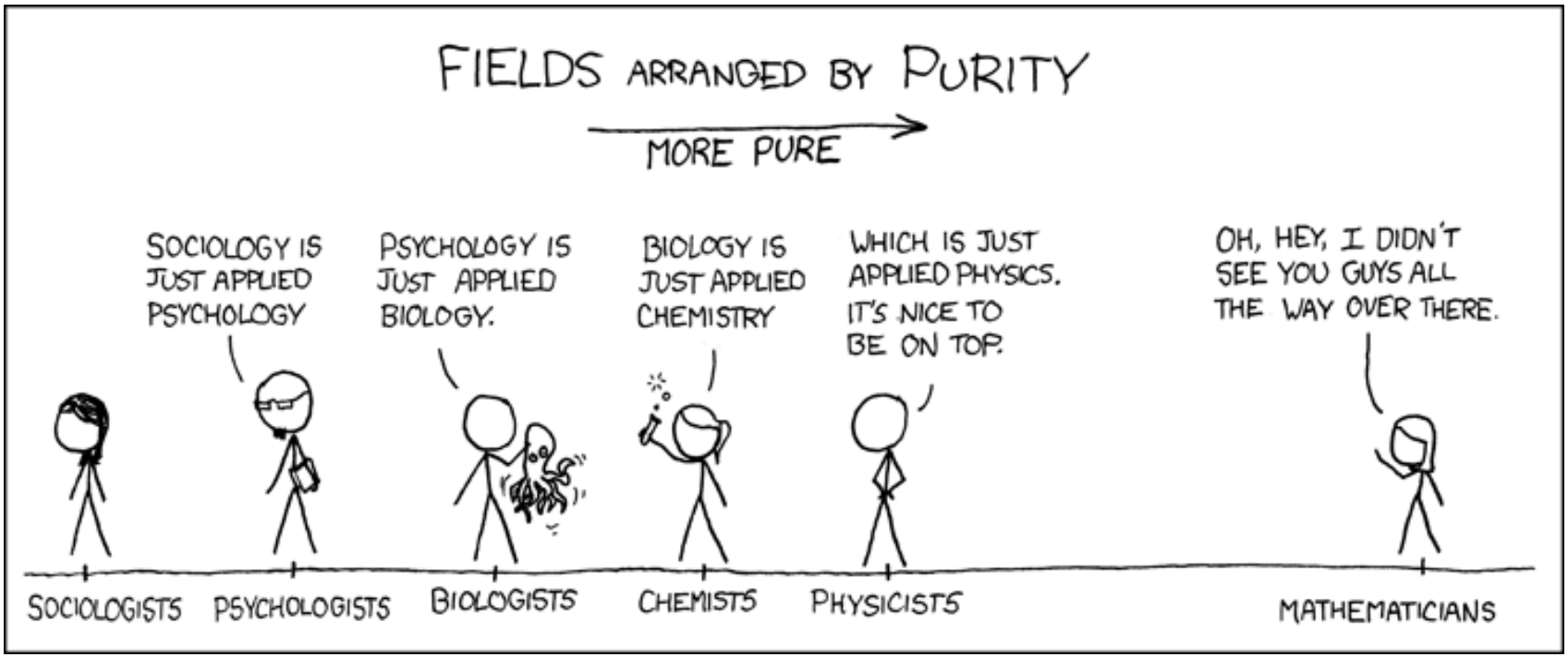
MATH1061 Week 2 Tutorial

5 March 2013



Source: `http://xkcd.com/435/`

Logical Statments

What is the logical negation of each of these statements? Which is true - the original statement or its negation? (Check by seeing that the other one is false)

1. Our tutorial is in the Priestley building, or you have to submit your assignments in the Priestley building.
2. If pigs can fly, then Mr. Burns will donate a million dollars to the local orphanage.[1]
3. If there are Engineering students in the Hawken building, then there will be a Discrete Maths lecture on Wednesday morning.
4. If the sky is pink, then the sky is blue.

[1] For this exercise, it is safe to assume that pigs can't fly. For Mr. Burns, it's not a safe assumption.

Conditionals

The following statement is true: "Jackson brings his umbrella to uni when it's going to rain". Which of the following is also true?

1. To rain, it suffices that Jackson brings his umbrella to uni.
2. If it is raining, then Jackson brought his umbrella to uni.
3. If Jackson doesn't have his umbrella, then it's not raining.
4. If it's not going to rain, Jackson won't bring his umbrella.
5. It's necessary that Jackson has his umbrella for it to rain.
6. A rainy forecast causes Jackson to bring his umbrella to uni.