

MATH 102: IDEAS OF MATH

WORKSHEET 1

1. Deductive reasoning

Problem 1.1. Give an example of an invalid inductive reasoning.

Problem 1.2. Describe Sherlock's deduction to decide if the case is a murder or a suicide in the following clip: https://www.youtube.com/watch?v=4PKr_BVo4hg.

Make sure to re-write in the premises and conclusion form as in the slides. Make sure you're as clear as you can so that the reader can see right away what're the premises and conclusion.

2. Logical connectives

Problem 2.1. Analyze the form of the following statements.

- (1) Either John went to the store, or we're out of eggs.
- (2) Joe is going to leave home and not come back.
- (3) Either Bill is at work and Jane isn't, or Jane is at work and Bill isn't.