

Mathematics 2200H – Mathematical Reasoning

TRENT UNIVERSITY, Fall 2021

Assignment #2

Due on Friday, 24 September.

*May be submitted on paper or via Blackboard.**

A very special planet in the Unknown Regions is inhabited only by jedi and sith. Jedi always tell the truth and sith always lie. You meet eight inhabitants of this very special planet: Sol, Zek, Dab, Gy, Mer, Ey, Ab, and Rex.

Sol says that only a sith would say that Mer is a sith. Zek tells you, “Rex is a sith” Dab claims that Sol is a sith. Gy claims that Sol and Rex are not the same kind of Force-sensitive. Mer tells you that it’s not the case that Ae is a sith. Ey says, “At least one of the following is true: that Ab is a jedi or that I am a jedi.” Ab says that Dab could claim that Mer is a sith. Rex tells you that Sol and Dab are not the same kind of Force-sensitive.

1. Determine, as best you can, which of the eight is a jedi and which is a sith. Please give your reasoning, as completely and clearly as you can. [10]

NOTE. This puzzle is an adaptation of Puzzle #323 (out of 382) of the collection of “Knights and Knaves” puzzles posted by the Department of Philosophy at Hong Kong University at <https://philosophy.hku.hk/think/logic/knights.php> .

* All else failing, please email your solutions to the instructor at: sbilaniuk@trentu.ca