

EXERCISE 7

Human Reasoning and Computational Logic

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Problem 7.1

Show that the following proposition holds:

Proposition Let \mathcal{P} be a program. Then, Stenning and van Lambalgen's immediate consequence operator $\Phi_{\mathcal{P}}$ is a monotonic mapping.

Problem 7.2

Show that the following proposition holds:

Proposition Let \mathcal{P} be a program. Then, Fitting's immediate consequence operator $\Psi_{\mathcal{P}}$ is a monotonic mapping.

Is $\Psi_{\mathcal{P}}$ continuous? Motivate your answer.