

2 Introduction

On August 19, 2018, the author was studying the *Section 2.5 - The Schmidt decomposition and purification* of [Nielsen and Chuang's book](#). Up until this section, all exercises were fairly discussed in [worked problem's website](#). Most of the answers are reasonably satisfactory, though some lack formalism and detailed explanation. However, this website only discusses exercises [2.1](#) to [2.76](#). Question 2.77 is discussed on [StackExchange's website](#). Apparently, question 2.78 onward are not commonly discussed. Henceforth, this material will *initially* focus on these questions. Details on questions 2.1 to 2.76 will be added sporadically.

In addition, this material will contain details on the equations solved during each chapter. Most explanations will try to specify the steps using to jump from one equation to another. Also, some affirmations and equations may induce doubts in the author; who will try to state and clarify them in this document.