

# Quantum Mechanics II: PHYS 314 (Spring 2021)

## Quick quiz 1

Chis Monahan  
William & Mary

### Instructions

These quick quizzes are low-stakes assessment tools to help cement your understanding of our material. They will help you remember the key facts and can serve as a study guide to help you focus on material you are less familiar with. These quizzes do not contribute to your grade and are for your own use.

1. **Without looking at your notes or the textbook, and without consulting with your neighbour**, write your answer to each question in the **first column**.
2. Discuss with your neighbour and use your notes or the textbook as needed to answer each question and write your answers to each question in the **second column**. You should complete the second column, but do not add anything to your first column.

There are five questions.

### Question 1

What is the key difference between quantum mechanics and classical mechanics in your opinion?

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### Question 2

What is the relationship between commuting operators and measurements in quantum mechanics?

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**Question 3**

How is separation of variables used when solving the Schrödinger equation and what advantages does it bring?

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**Question 4**

Why are the solutions to the free particle potential unphysical? How does the uncertainty principle help us out here?

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**Question 5**

What did you find most challenging about Quantum Mechanics I and why?

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