

Homework Quiz - Week 20 Results for Murshed SK

❗ Correct answers are hidden.

Score for this attempt: 10 out of 10

Submitted Mar 21 at 4:49am

This attempt took less than 1 minute.



Question 1

2 / 2 pts

In Problem #1.4, what is the size of the resulting array?

- ☐ 1
- ☒ 2
- ☐ 8
- ☐ 12



Question 2

2 / 2 pts

Which of the following best describes how we should interpret the results of Problem #1.6?

- ☒ The zero_one_state is not a valid state because it has a 200% chance of being measured as 0 or 1, which is not realistic.
- ☐ These are all valid quantum states.
- ☐ None of these are valid quantum states.
- ☐ The zero_one_state is a valid state because it is a combination of quantum states.
- ☐ The length of the zero_one_state is 2, which means its not a valid quantum state.



Question 3

2 / 2 pts

Which of the following is closest to the probability you calculated in Problem #1.9?

- ☐ -0.7
- ☐ 0
- ☒ 0.5
- ☐ 0.7
- ☐ 1



Question 4

2 / 2 pts

In Problem #1.10, the theoretical probability of measuring 0 is 0.75. Which of the following best describes the results you found in relation to this? The result is...

- ☐ Exactly 0.75 because we are calculating the theoretical probability.
- ☐ Completely different than 0.75 because quantum measurements are random.
- ☐ Close to, but not exactly, 0.75 because quantum measurements are random.
- ☒ Close to, but not exactly, 0.75 because computers are not always perfectly precise.
- ☐ Closer to 0.87, the square root of 0.75, because the coefficient of the 0 state is the square root of 0.75, not 0.75



Question 5

2 / 2 pts

In Problem #2.2, what does your simulation seem to say the probability of measuring the 1 state is?

- ☒ 0
- ☐ 0.5
- ☐ -0.7
- ☐ 0.7
- ☐ 1

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