

20S-MATH61-2 Quiz 5

CHARLES ZHANG

TOTAL POINTS

10 / 10

QUESTION 1

1 Question 1 **10 / 10**

✓ - **0 pts** Correct

- **1 pts** Minor mistake.

- **4 pts** Incorrect.

- **2 pts** Several mistakes that add up.

- **7 pts** Incorrect, argument makes little sense.

Q50: A hand is 7 cards, how many contain exactly 2 suits?

$\binom{4}{2} \rightarrow$ take 2 out of the 4 suits

$\binom{26}{7} \rightarrow$ take 7 out of the 26 cards possible ($52/2=26$)

$2\binom{13}{7} \rightarrow$ number of ways we can get hands of all 1 suit

$$\binom{4}{2} \left[\binom{26}{7} - 2\binom{13}{7} \right] \text{ hands contain exactly 2 suits}$$

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