

Quiz 2

D Term, 2021

I affirm that I have not consulted my text, notes or any reference, paper or electronic, or any person once I opened and/or looked at this quiz.

Signature: _____

Show all work needed to reach your answers.

1. (5 points) If $S = \{1, \pi, \sqrt{3}\}$, please find the power set of S .

$$\mathcal{P}(S) = \underline{\hspace{15em}}$$

2. (10 points) Suppose that A , B and C are all subsets of some universe U . Please show that

$$A \cap (B \cup C) \subset (A \cap B) \cup (A \cap C)$$

3. (10 points) Please use induction to show that $2 + 4 + 6 + \dots + 2n = n(n + 1)$.