

Directions: Answer each question to the best of your ability. **Show your reasoning** and/or process used to answer the question(s) where it is appropriate. A calculator will NOT be necessary for this quiz. There are 5 questions.

Section 7.1

1. (3 pts)

Let $A = \{2, 3, 6, 8, 9\}$ and $B = \{2, 8, 10\}$. Indicate if each statement is true or false.

$$2 \in A$$

- A. True
- B. False

$$6 \in A \cap B$$

- A. True
- B. False

$$B \subset A$$

- A. True
- B. False

(3 pts each) You may want to make a Venn Diagram to help with this one:

Let S be the universal set, where:

$$S = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20\}$$

Let sets A and B be subsets of S , where:

$$\text{Set } A = \{1, 3, 5, 9, 11, 15, 17, 19\}$$

$$\text{Set } B = \{2, 3, 4, 5, 6, 17, 18, 19, 20\}$$

Find the following: Please use $\{ \}$ when asked to list elements of a set

2. LIST the elements in the set $(A \cup B)$:

3. LIST the elements in the set $(A \cap B)$:

4. LIST the elements in the set $(A \cap B^c)$:

5. LIST the elements in the set $(B \cap A^c)$:

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