

# Math 2283 - Introduction to Logic

## Quiz #17 - 2016.02.24 Solutions

---

Consider the following sets:

$$\mathbb{A} = \{1, 3, 5, 7, 9, 11\}$$

$$\mathbb{B} = \{2, 4, 6, 8, 10\}$$

$$\mathbb{C} = \{0, 1, 2, 3, 4\}$$

Perform the following set operations:

1.  $\mathbb{A} \cap \mathbb{B}$ .

$$\mathbb{A} \cap \mathbb{B} = \{\}$$

2.  $\mathbb{A} \cap \mathbb{C}$ .

$$\mathbb{A} \cap \mathbb{C} = \{1, 3\}$$

3.  $\mathbb{B} \cap \mathbb{C}$ .

$$\mathbb{B} \cap \mathbb{C} = \{2, 4\}$$

4.  $\mathbb{A} \cup \mathbb{B}$ .

$$\mathbb{A} \cup \mathbb{B} = \{1, 2, 3, 4, \dots, 10, 11\}$$

5.  $\mathbb{A} \cup \mathbb{C}$ .

$$\mathbb{A} \cup \mathbb{C} = \{0, 1, 2, 3, 4, 5, 7, 9, 11\}$$

6.  $\mathbb{B} \cup \mathbb{C}$ .

$$\mathbb{B} \cup \mathbb{C} = \{0, 1, 2, 3, 4, 6, 8, 10\}$$