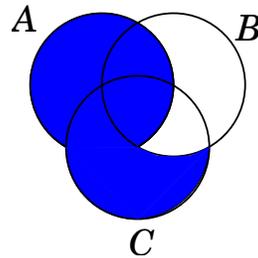
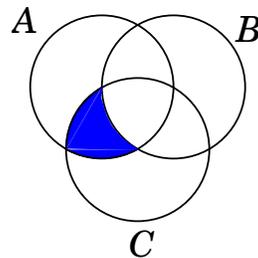


Homework 1 – Solutions

- 1.2. (a) 5 (b) 11 (c) 51 (d) 2 (e) 1 (f) 2
- 1.4. (a) $A = \{x \in \mathbb{Z} \mid x < 0\}$ (b) $B = \{x \in \mathbb{Z} \mid -3 \leq x \leq 3\}$
 (c) $C = \{x \in \mathbb{Z} \mid 1 \leq |x| \leq 2\}$
- 1.8. (a) $A = \{1\}$, $B = \{\{1\}, \{2\}\}$, $C = \{1, 2\}$
- 1.16. (a) $A \cup B = \{1, 3, 5, 9, 13, 15\}$ (b) $A \cap B = \{9\}$ (c) $A - B = \{1, 5, 13\}$
 (d) $B - A = \{3, 15\}$ (e) $\overline{A} = \{3, 7, 11, 15\}$ (f) $A \cap \overline{B} = \{1, 5, 13\}$
- 1.18. (a) $(C - B) \cup A$



- (b) $C \cap (A - B)$



Note. Problems 1.4 and 1.8 have other correct answers.