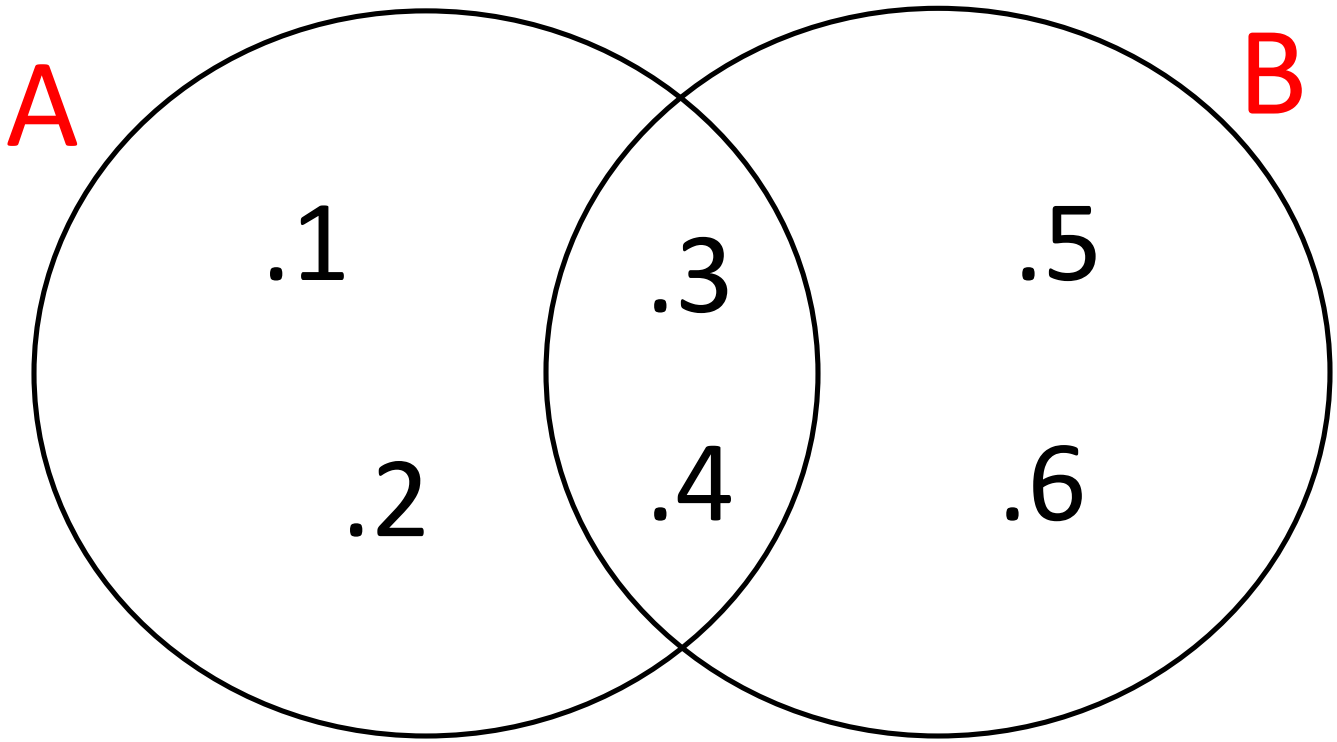
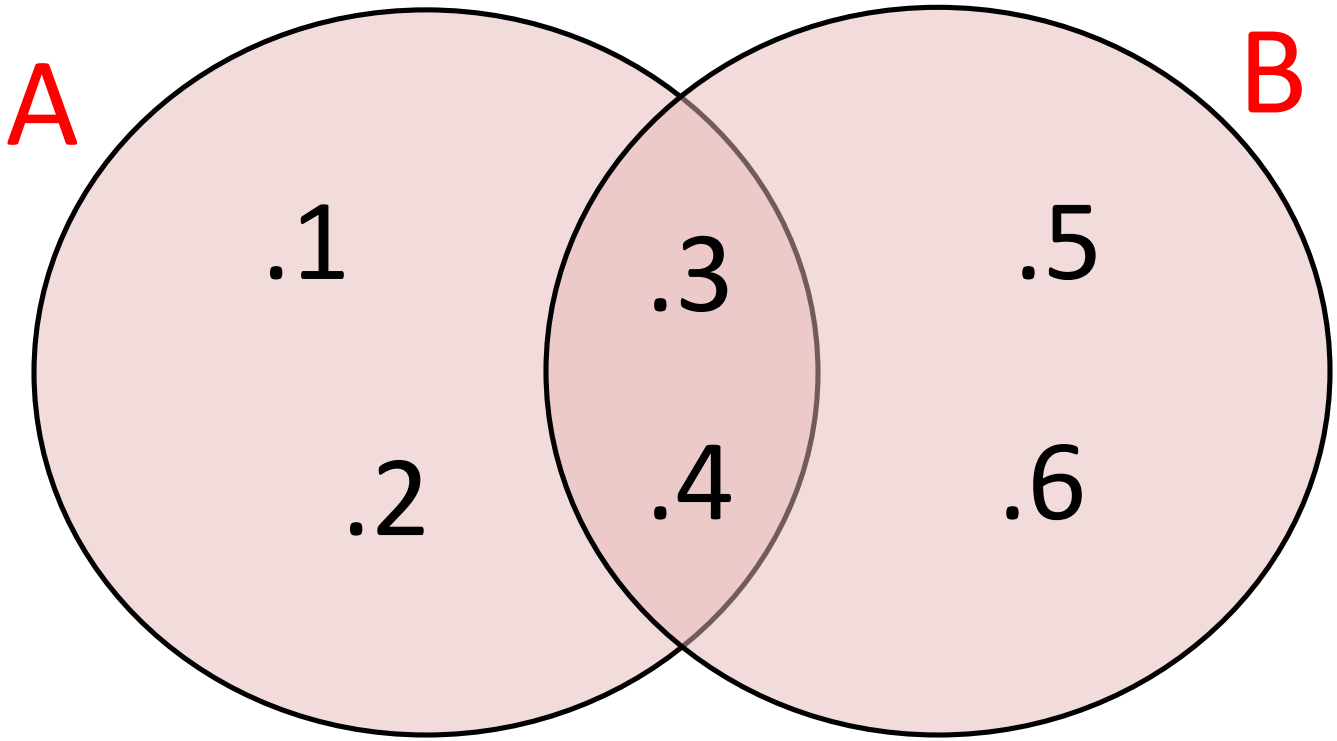
Унија, пресек и разлика скупова

- утврђивање -

1. Дати су скупови A = { 1, 2, 3, 4 } и B = { 3, 4, 5, 6 } . Нацртај Венов дијаграм и одреди унију, пресек и разлику скупова A и B.

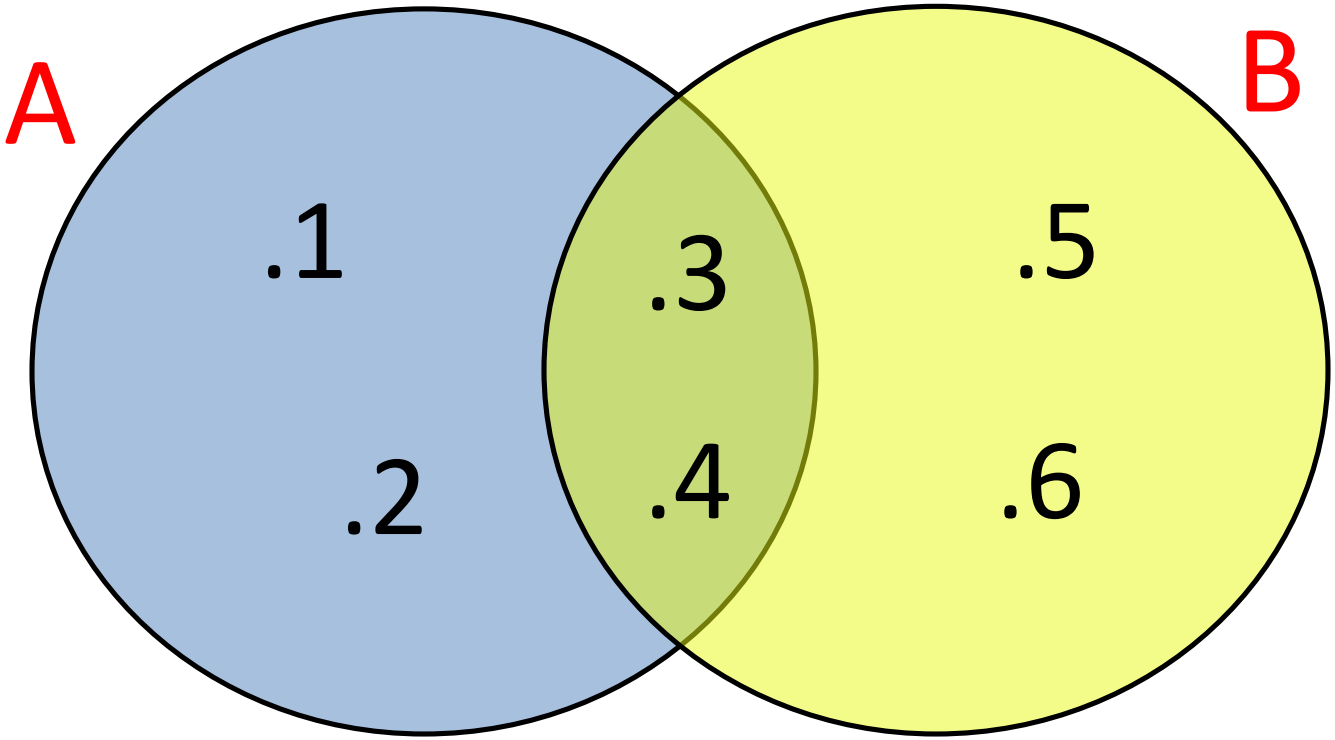


Унија скупова



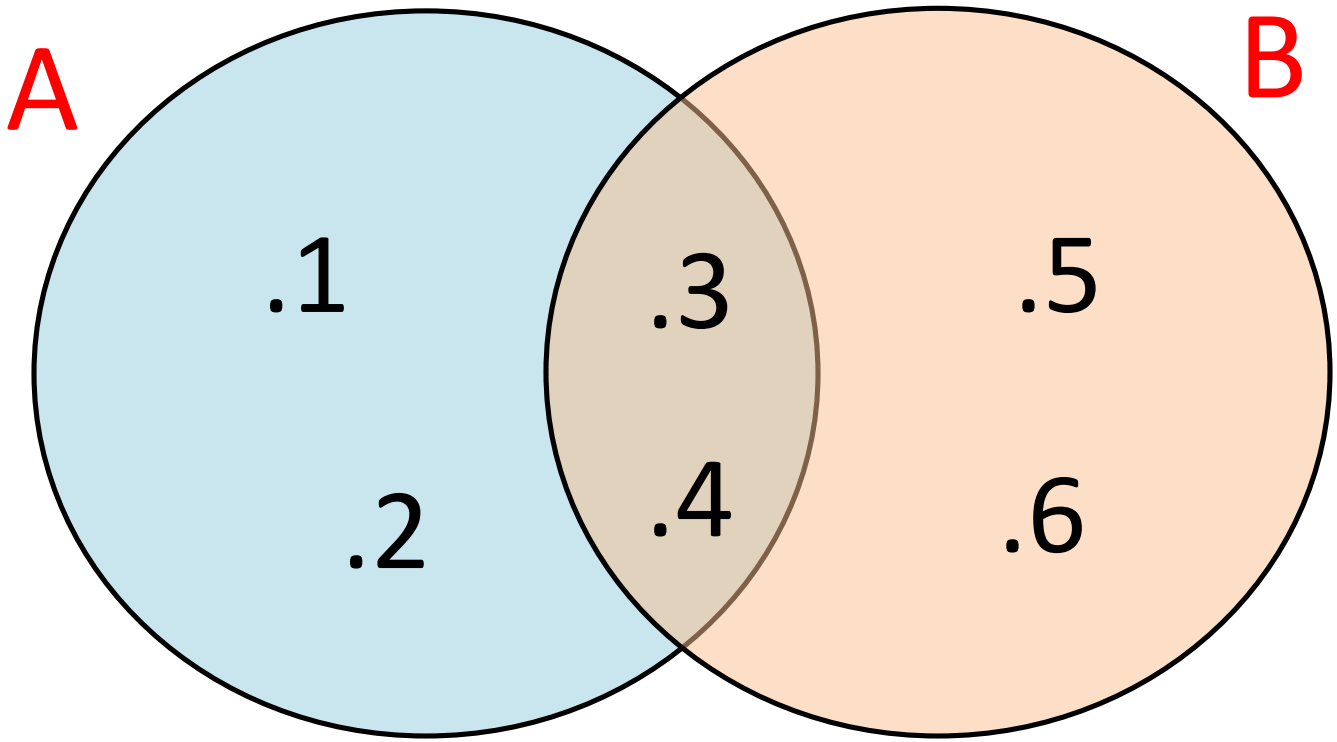
A U B = { 1, 2, 3, 4 } U { 3, 4, 5, 6 } = { 1, 2, 3, 4, 5, 6 }

Пресек скупова



$A \cap B = \{ 1, 2, 3, 4 \} \cap \{ 3, 4, 5, 6 \} = \{ 3, 4 \}$

Разлика скупова

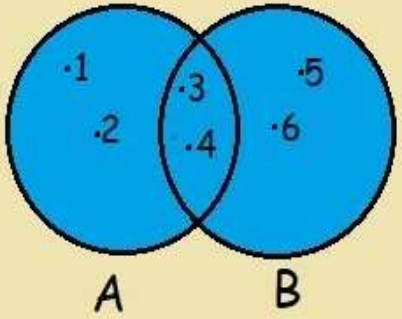


$A \setminus B = \{ 1, 2, 3, 4 \} \setminus \{ 3, 4, 5, 6 \} = \{ 1, 2 \}$

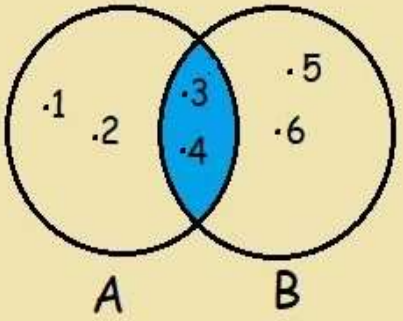
$B \setminus A = \{ 3, 4, 5, 6 \} \setminus \{ 1, 2, 3, 4 \} = \{ 5, 6 \}$

Унија и пресек скупова

$A \cup B$

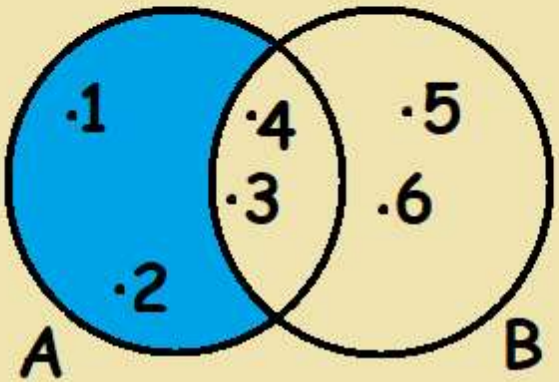


$A \cap B$

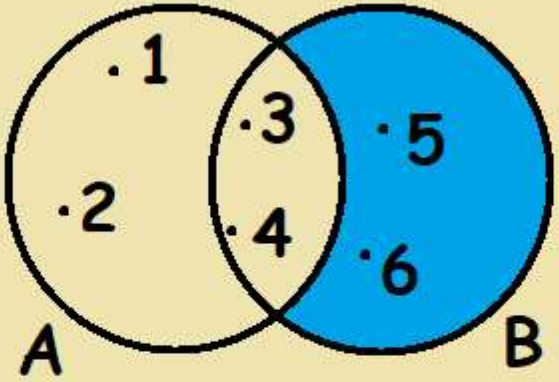


Разлика скупова

$A \setminus B$



$B \setminus A$



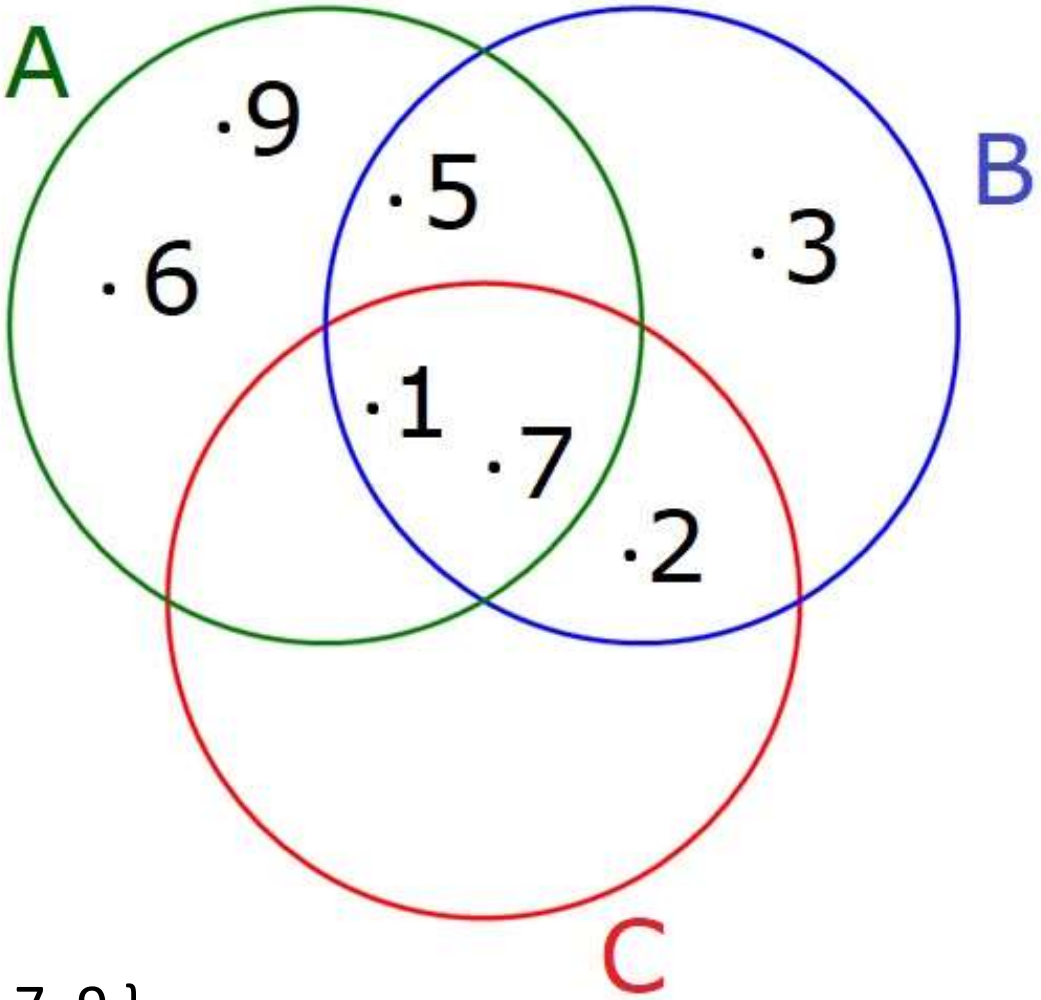
Запамти : $A \setminus B \neq B \setminus A$

2. На основу Веновог дијаграма одреди елементе следећих скупова :

A = { 1, 5, 6, 7, 9 }

B = { 1, 2, 3, 5, 7 }

C = { 1, 2, 7 }



A U B = { 1, 2, 3, 5, 6, 7, 9 }

A U C = { 1, 2, 5, 6, 7, 9 }

B U C = { 1, 2, 3, 5, 7 }

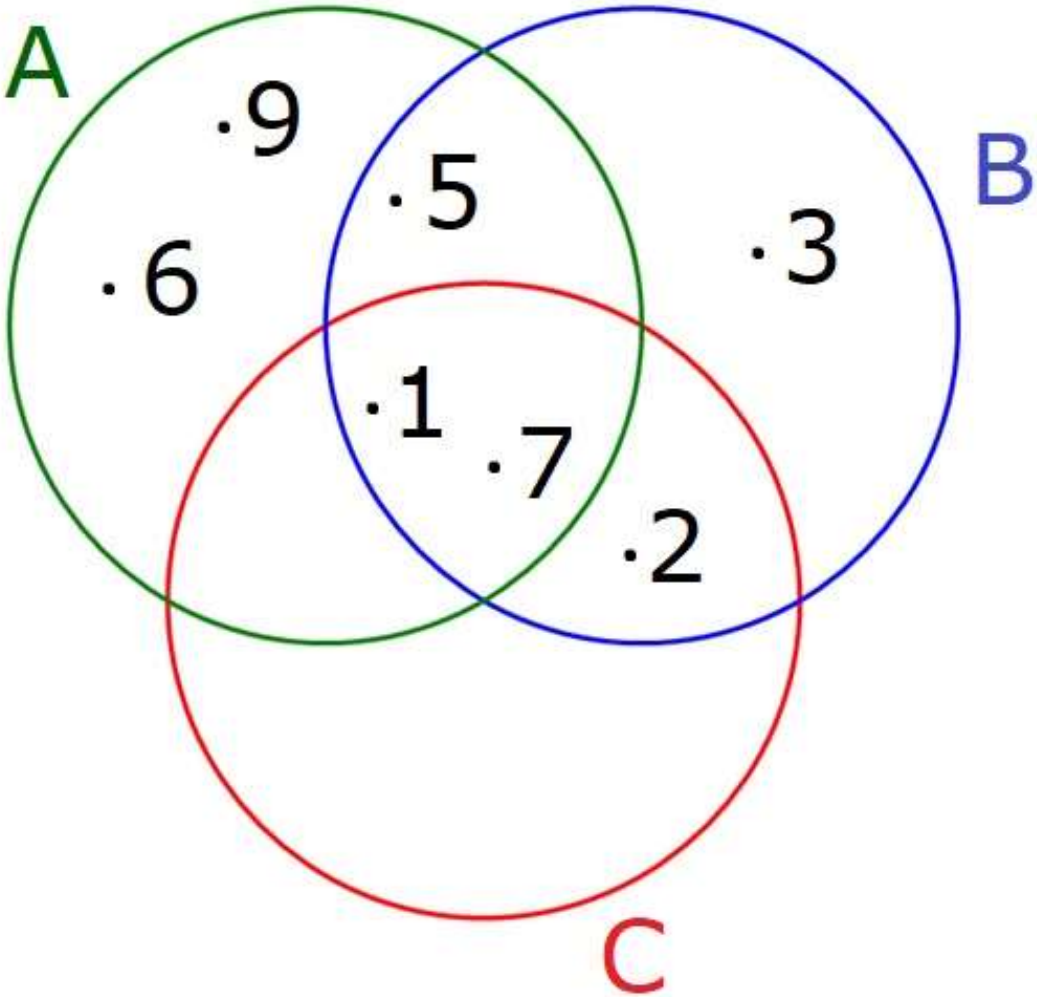
A U B U C = { 1, 2, 3, 5, 6, 7, 9 }

$A \cap B = \{ 1, 5, 7 \}$

$A \cap C = \{ 1, 7 \}$

$B \cap C = \{ 1, 2, 7 \}$

$A \cap B \cap C = \{ 1, 7 \}$



$A \setminus B = \{ 6, 9 \}$

$B \setminus A = \{ 2, 3 \}$

$A \setminus C = \{ 5, 6, 9 \}$

$C \setminus A = \{ 2 \}$

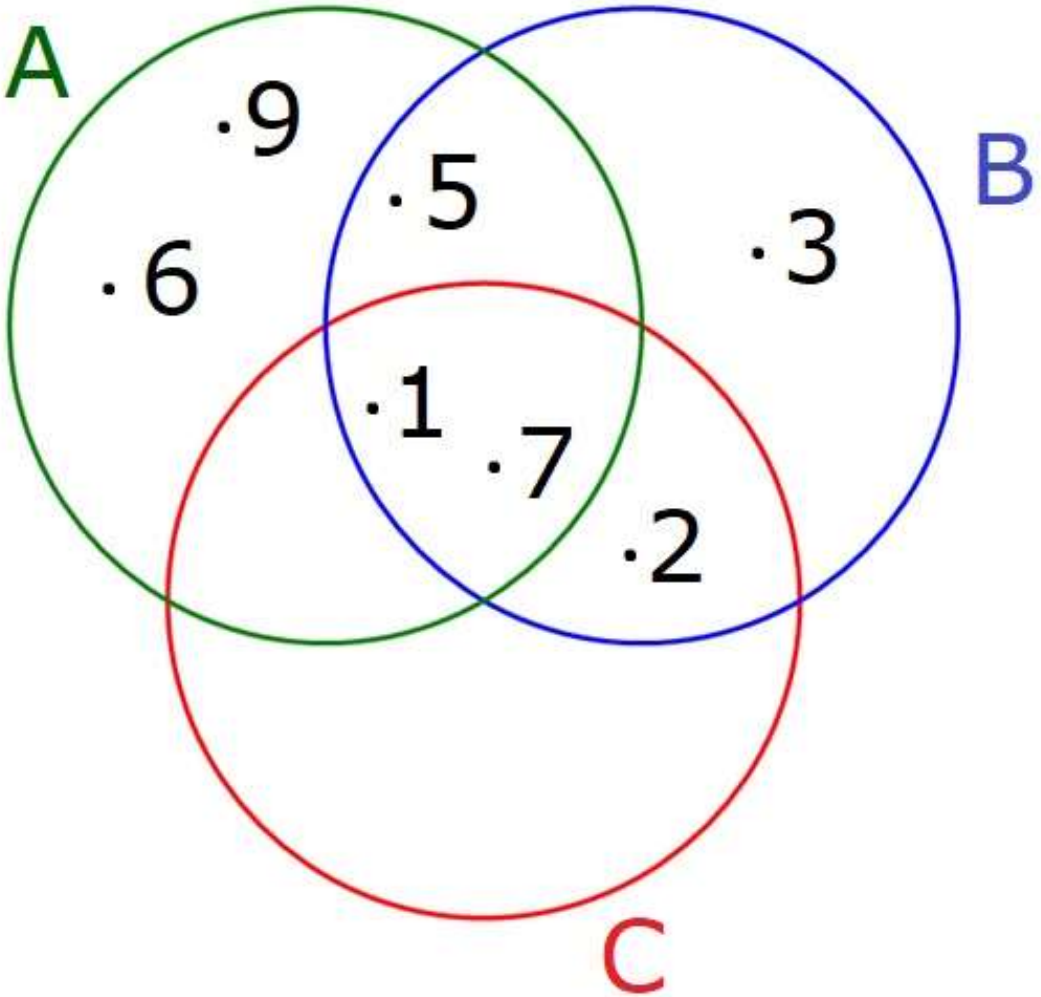
$B \setminus C = \{ 3, 5 \}$

$C \setminus B = \{ \}$

$A \setminus (B \setminus C) = \{ 1, 6, 7, 9 \}$

$B \setminus (A \setminus C) = \{ 1, 2, 3, 7 \}$

$C \setminus (A \setminus B) = \{ 1, 2, 7 \}$



$A \cup (B \cap C) = \{1, 2, 5, 6, 7, 9\}$

$A \cap (B \cup C) = \{1, 5, 7\}$

$A \setminus (B \cup C) = \{6, 9\}$

$A \setminus (B \cap C) = \{5, 6, 9\}$

$(A \cup C) \setminus B = \{6, 9\}$

$B \setminus (A \cap C) = \{2, 3, 5\}$

$C \cap (B \cup A) = \{1, 2, 7\}$

$C \setminus (A \cup B) = \{\}$

$(A \cap B) \setminus (B \cup C) = \{\}$