Exercise (set operations)

① $A = \{ x \mid x$ is a vowel of the English alphabet $\}$

$B = \{ x \mid x$ is a consonent of the English alphabet $\}$

a) $A \cap B$

b) $A \cup B$

c) $A - B = A$.

② $A = \{ 1, 2, 3, 5, 6 \}$

$B = \{ 0, 4, 5 \}$

a) $B - A$ 0, 4.

b) $A - B$ 1 2 3 6

c) $A \cup B$ 0 1 2 3 4 5 6.

d) $A \times B$

e) $B \times A$

f) $(A \times B) \cap (B \times A)$

A B.

(1,0) (1,4) (1,5)

③ $A = \{ a, b, c, d \}$

$B = \{ a, d, c, e, g, h \}$

a) $B \cap A$ $\{a, c, d\}$

b) $B - A$ $\{e, g, h\}$

c) $P(B - A)$

d) $P(A \cap B)$

④ $A = \{0, 2, 4, 6, 8, 10\}$

$B = \{0, 1, 2, 3, 4, 5, 6\}$

$C = \{4, 5, 6, 7, 8, 9, 10\}$

a) $A \cap B \cap C$

b) $A \cup B \cup C$

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

⑤ $A = \{a, b, c, e, g, h\}$

$B = \{b, d, e, f, g\}$

$C = \{h, i, a, b\}$

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

b) $A \cap B \cap C$

c) $(A \cup B) - (A \cap C)$