

Set Notation

$$A = \{1, 2, 7, 8, 10\}$$

$$B = \{1, 2, 3, 4\}$$

$$C = \{2, 4, 6, 8\}$$

(a) List the elements of $A \cap B$

(b) List the elements of $B \cup C$

(c) Find $n(B)$

(d) Find $n(A \cup C)$

(e) $3 \in B$. True or false?

(f) $2 \in B \cap C$. True or false?

$$(a) A \cap B = \{1, 2\}$$

$$(b) B \cup C = \{1, 2, 3, 4, 6, 8\}$$

$$(c) n(B) = 4$$

$$(d) n(A \cup C) = 7$$

(e) True

(f) True

$$A = \{n, u, m, b, e, r\}$$

$$B = \{e, q, u, a, l\}$$

$$C = \{s, i, x\}$$

(a) List the elements of $A \cup C$

(b) List the elements of $B \cap A$

(c) Explain why $B \cap C = \emptyset$

(d) Find $n(B \cup C)$

(e) List the elements of $A \cap B'$

(f) $d \notin A \cup B \cup C$. True or false?

$$(a) A \cup C = \{n, u, m, b, e, r, s, i, x\}$$

$$(b) B \cap A = \{u, e\}$$

(c) There are no elements in B that are also in C

$$(d) n(B \cup C) = 8$$

$$(e) A \cap B' = \{n, m, b, r\}$$

(f) True

$$\xi = \{5, 6, 7, 8, 9, 10, 11, 12\}$$

$$A = \{5, 7, 9, 11\}$$

$$B = \{9, 10, 11, 12\}$$

(a) List the elements of $A \cup B$

(b) List the elements of B'

(c) Find $n(B \cap A)$

(d) $10 \notin B$. True or false?

(e) List the elements of $(A \cup B)'$

(f) $11 \in A \cap B$. True or false?

(g) Find $n(A' \cup B)$

(h) List the elements of $A \cup B'$

$$(a) A \cup B = \{5, 7, 9, 10, 11, 12\}$$

$$(b) B' = \{5, 6, 7, 8\}$$

$$(c) n(B \cap A) = 2$$

(d) False

$$(e) (A \cup B)' = \{6, 8\}$$

(f) True

$$(g) n(A' \cup B) = 6$$

$$(h) A \cup B' = \{5, 6, 7, 8, 9, 11\}$$