

1

$$(a) \#A = 4$$

$$(b) \#B = 47$$

$$(c) \#C = 0$$

$$(e) \#E = 6$$

2.

$$\#U = 60$$

$$\#A = 25$$

$$\#N = 26$$

$$\#I = 26$$

$$\#(A \cap I) = 9$$

$$\#(A \cap N) = 11$$

$$\#(N \cap I) = 8$$

$$\#(A^c \cap I^c \cap N^c) = 8$$

(a)

$$x = \#(A \cap I \cap N)$$

$$\#(A \cup I \cup N) = 60 - 8 = 52$$

$$= 25 + 26 + 26 - 9 - 11 - 8 + x$$

$$x = 3$$

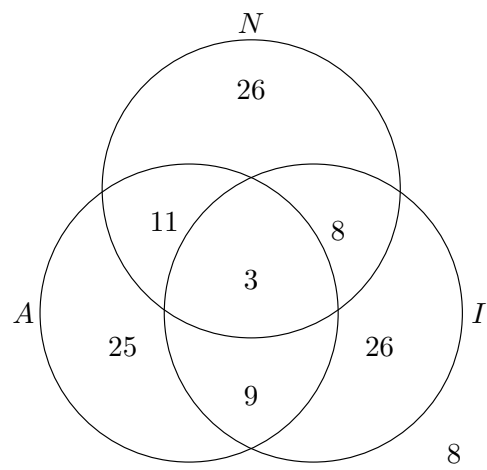
(b)

$$\#(A \cap I^c \cap N^c) = 25 - (11 + 9 - 3) = 8$$

$$\#(A^c \cap I \cap N^c) = 26 - (8 + 9 - 3) = 12$$

$$\#(A^c \cap I^c \cap N) = 26 - (11 + 8 - 3) = 10$$

ベン図



3.

$$\#(A \cup B \cup C \cup D) = \#A + \#B + \#C + \#D$$