Tugas Probabilitas dan Statistika

Ditulis dalam LaTeX

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I

Variabel
M = Medical N = Non-Medical P = Pria
W = Wanita A = Anak-Anak D = Dewasa
Data:
$n(s) = 20.000$
(I) $n(P \cap M) = 3.000$
(II) $n(M \cap A) = 2.500$
(III) $n(P \cap A) = 3.000$
(IV) $n(M \cap (P \cap A)) = 1.000$
(V) $n(M) = 5000$
(VI) $n(B) = 10.000$
(VII) $n(A) = 12.000$
Ditanya = $n(W \cap (D \cap M))$?

Jawab :

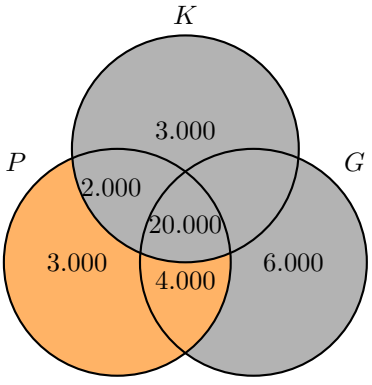
1. $n(W) = n(S) - n(P) = 20.000 - 10.000 = 10.000$
2. $n(D) = n(S) - n(A) = 20.000 - 12.000 = 8000$
3. $n(P \cap N) = 20.000 - 5000 = 15.000$
4. $n(W \cap M) = n(M) - n(P \cap M) = 5000 - 3000 = 2000$
5. $n(M \cap D) = n(M) - n(M \cap A) = 5000 - 2.500 = 2.500$
6. $n(W \cap D) = n(D) - n(P \cap D) = 8000 - 7000 = 1000$
7. $n(M \cap (P \cap A)) = 1000$
8. $n(M \cap (W \cap A)) = n(M \cap A) - n(M \cap (P \cap A)) = 2.500 - 1000 = 1.500$
9. $n(W \cap (P \cap M)) = n(W \cap M) - n(M \cap (W \cap A)) = 2000 - 1.500 = 500$

II

Variabel
S = Himpunan Semesta
P = Perokok
K = Alkohol
G = Gaya hidup tidak sehat
Data:

1. $n(S) = 40.000$
2. $n(P) = 29.000$
3. $n(K) = 25.000$
4. $n(G) = 30.000$
5. $n(P \cap K) = 22.000$
6. $n(P \cap G) = 24.000$
7. $n(K \cap K) = 20.000$
8. $n(P \cap K \cap G) = 20.000$

Perokok tapi tidak kecanduan alkohol = $n(K^c \cap (A - B)^c)$



Jadi, $n(K^c \cap (A - B)^c)$
$= 4000 + 3000$
$= 7000$ pasien