2022180185 王海圣

A

2.4.(46) P(A|B) is higher because most of the basketball player are tall.
P(B|A) is smaller because the number of male taller than 6feet is alot higher than the number of professional basket ball player

(50) a. $P(M \cap LS \cap PR) = 0.05$

b. $P(M \cap Pr) = P(M \cap LS \cap Pr) + P(M \cap SS \cap Pr) = 0.05 + 0.07 = 0.12$

c. $P(SS) = 0.56$ $P(LS) = 1 - 0.56 = 0.44$

d. $P(M) = 0.08 + 0.07 + 0.12 + 0.1 + 0.05 + 0.07 = 0.49$
$P(Pr) = 0.02 + 0.07 + 0.02 + 0.05 + 0.07 = 0.23$

e. $P(M|SS \cap Pl) = \frac{P(M \cap SS \cap Pl)}{P(SS \cap Pl)} = \frac{0.08}{0.04 + 0.08 + 0.03} = 0.533$

f. $P(SS|M \cap Pl) = \frac{P(SS \cap M \cap Pl)}{P(M \cap Pl)} = \frac{0.08}{0.08 + 0.1} = 0.444$

$P(LS|M \cap Pl) = 1 - 0.444 = 0.556$

NO.

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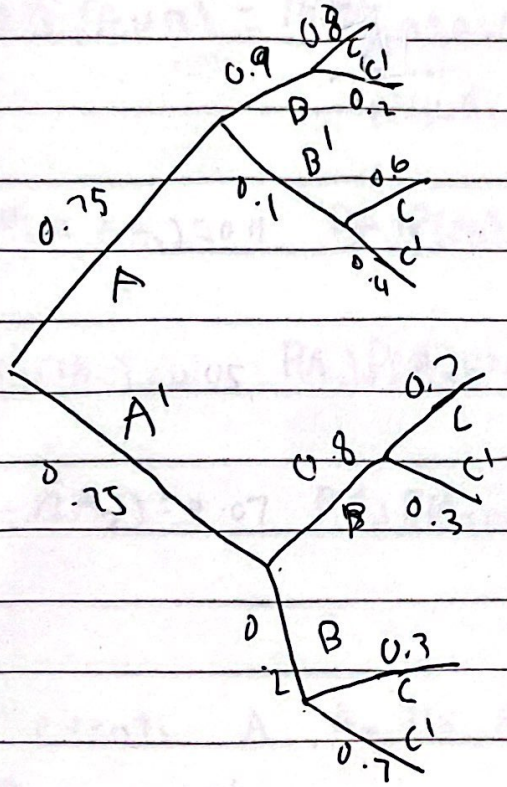
(62) $P(A\cup B/C) = \frac{P[(A\cup B)\cap C]}{P(C)} = \frac{P[(A\cap C)\cup(B\cap C)]}{P(C)}$

$= \frac{P(A\cap C)+P(B\cap C)-P(A\cap B\cap C)}{P(C)}$ ✓

$= P(A/C) + P(B/C) - P(A\cap B/C)$

(63) a.



b. $P(A\cap B\cap C) = (0.75)(0.9)(0.8) = 0.54$

c. $P(B\cap C) = P(A\cap B\cap C) + P(A'\cap B\cap C) = 0.54 + (0.25)(0.8)(0.7) = 0.68$

d. $P(C) = 0.54 + 0.045 + 0.14 + 0.015 = 0.74$ ✓

e. $P(A/B\cap C) = \frac{P(A\cap B\cap C)}{P(B\cap C)} = \frac{0.54}{0.68} = 0.7941$