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Dikno:

$$p(A_1) = 0.1; p(A_2) = 0.2; p(A_3) = 0.25$$

$$B_1 = A_1 A_2 A_3$$

$$B_2 = A_1 A_2 + A_2 A_3 + A_3 A_1$$

$$B_3 = \bar{A}_1 \bar{A}_2 \bar{A}_3$$

$$B_4 = \bar{A}_1 \bar{A}_2 \bar{A}_3 + A_1 A_2 A_3$$

Hitung:

$$i=1,4 \quad P(B_i)$$

Pemuaian:

$$p(B_1) = p(A_1 A_2 A_3) = p(A_1) p(A_2) p(A_3) =$$

$$= 0.1 \cdot 0.2 \cdot 0.25 =$$

$$= 10^{-1} \cdot 2 \cdot 10^{-1} \cdot 2.5 \cdot 10^{-1} = 2 \cdot 2.5 \cdot 10^{-3} = 5 \cdot 10^{-3} =$$

$$= 0.005$$

$$p(B_2) = p(A_1 A_2 + A_2 A_3 + A_3 A_1) =$$

$$= p(A_1 A_2) + p(A_2 A_3) + p(A_3 A_1) = p(A_1) p(A_2) + p(A_2) p(A_3) + p(A_3) p(A_1) =$$

$$= 0.1 \cdot 0.2 + 0.2 \cdot 0.25 + 0.25 \cdot 0.1 =$$

$$= 10^{-1} \cdot 2 \cdot 10^{-1} + 2 \cdot 10^{-1} \cdot 2.5 \cdot 10^{-1} + 2.5 \cdot 10^{-1} \cdot 10^{-1} = 2 \cdot 10^{-2} + 2 \cdot 2.5 \cdot 10^{-2} + 2.5 \cdot 10^{-2} =$$

$$= (2 + 5 + 2.5) 10^{-2} = 9.5 \cdot 10^{-2} =$$

$$= 0.095$$

$$P(B_3) = P(\bar{A}_1 \bar{A}_2 \bar{A}_3) =$$

$$= 1 - P(A_1 \bar{A}_2 \bar{A}_3) = 1 - P(A_1)P(\bar{A}_2)P(\bar{A}_3) =$$

$$= 1 - (1 - P(A_1))(1 - P(A_2))(1 - P(A_3)) =$$

$$= 1 - (1 - 0.1)(1 - 0.2)(1 - 0.25) = 1 - 0.9 \cdot 0.8 \cdot 0.75 =$$

$$= 1 - 9 \cdot 10^{-1} \cdot 8 \cdot 10^{-1} \cdot 7.5 \cdot 10^{-1} = 1 - 7.68 \cdot 9 \cdot 10^{-3} = (1)$$

$$7.5 \cdot 8 \cdot 9 = 7.5 \cdot 2 \cdot 4 \cdot 9 = 15 \cdot 4 \cdot 9 = 60 \cdot 9 = 540 = 5.4 \cdot 10^2$$

$$(1) = 1 - 5.4 \cdot 10^2 \cdot 10^{-3} = 1 - 5.4 \cdot 10^{-1} =$$

$$= 1 - 0.54 = 0.46$$

$$P(B_4) = P(\bar{A}_1 \bar{A}_2 \bar{A}_3 + A_1 A_2 A_3) =$$

$$= P(\overline{\bar{A}_1 \bar{A}_2 \bar{A}_3} + A_1 A_2 A_3) = P(\bar{B}_3 + B_1) =$$

$$= P(\bar{B}_3) + P(B_1) = (1 - P(B_3)) + P(B_1) = 1 - P(B_3) + P(B_1) =$$

$$= 1 - 0.46 + 0.005 = 0.54 + 0.005 = 0.545$$

Ответ:

$$P(A_1 A_2 A_3) = 0.005$$

$$P(A_1 A_2 + A_2 A_3 + A_3 A_1) = 0.095$$

$$P(\bar{A}_1 \bar{A}_2 \bar{A}_3) = 0.46$$

$$P(\bar{A}_1 \bar{A}_2 \bar{A}_3 + A_1 A_2 A_3) = 0.545$$

Примерение:

гемаль выиграл из карты:

$A_1$  - первая;  $A_2$  - вторая;  $A_3$  - третья

$A_1 A_2 A_3$  - все;

$A_1 A_2 + A_2 A_3 + A_3 A_1$  - где;

$\bar{A}_1 \bar{A}_2 \bar{A}_3$  - не меньше очков;

$\bar{A}_1 \bar{A}_2 \bar{A}_3 + A_1 A_2 A_3$  - от очков  
90 очков;