

$$P(A_1 | B) = 1 - P(\text{not } A_1 | B)$$

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$$= 1 - P(\textcircled{1} \text{ not } 1^{\text{st}} \text{ or } \textcircled{2} \text{ hit } 2^{\text{nd}} \text{ or } \textcircled{3} \text{ not } \dots \textcircled{4} \text{ not } 4^{\text{th}})$$

①

$$\textcircled{B_2} = 1 - P(\textcircled{1} \text{ not } 1^{\text{st}} \text{ or } \textcircled{2} \text{ hit } 2^{\text{nd}}) \dots P(\textcircled{1} \text{ not } 4^{\text{th}})$$

$$\textcircled{B_1} = 1 - \left(1 - \frac{1}{6}\right) \cdot \left(1 - \frac{1}{6}\right) \dots \left(1 - \frac{1}{6}\right)$$

$$= 1 - \left(1 - \frac{1}{6}\right)^4 = 0.518 = \frac{671}{1296}$$

$$P(A_2 | B) = 1 - \left(1 - \frac{1}{36}\right)^{24} = 0.491$$