

1. 设 A, B 为随机事件 $P(A) = 0.8, P(A - B) = 0.3$, 则 $P(\overline{AB}) =$ _____
2. 设事件 A, B 和 $A \cup B$ 的概率分别为 0.2, 0.3 和 0.4, 则 $P(\overline{AB}) =$ _____ .
3. 已知 $P(A) = P(B) = \frac{1}{4}, P(AB) = 0$, 则 A, B 都不发生的概率为_____.
4. 设 $P(A) = \frac{1}{3}, P(B) = \frac{1}{2}$, 试就以下三种情况分别求 $P(B\overline{A})$:
 - (1) $AB = \Phi$,
 - (2) $A \subset B$,
 - (3) $P(AB) = \frac{1}{8}$.
5. 已知 $P(A) = P(B) = P(C) = \frac{1}{4}, P(AC) = P(BC) = \frac{1}{16}, P(AB) = 0$, 求事件 A, B, C 全不发生的概率.
6. 设事件 A 与事件 B 互不相容, 则_____
 - (A) $P(\overline{A} \overline{B}) = 0$;
 - (B) $P(AB) = P(A) \cdot P(B)$;
 - (C) $P(\overline{A}) = 1 - P(B)$;
 - (D) $P(\overline{A} \cup \overline{B}) = 1$.

1. 0.5

2. 0.1

3. 0.5

4.解:

$$(1) P(B\overline{A}) = P(B - A) = P(B) - P(AB) = \frac{1}{2};$$

$$(2) P(B\overline{A}) = P(B - A) = P(B) - P(A) = \frac{1}{6};$$

$$(3) P(B\overline{A}) = P(B - AB) = P(B) - P(AB) = \frac{1}{2} - \frac{1}{8} = \frac{3}{8}.$$

5.解:

$$P(\overline{A}\overline{B}\overline{C}) = P(\overline{A \cup B \cup C}) = 1 - P(A \cup B \cup C) =$$

$$1 - [P(A) + P(B) + P(C) - P(AB) - P(AC) - P(BC) + P(ABC)]$$

$$= 1 - \left[\frac{1}{4} + \frac{1}{4} + \frac{1}{4} - 0 - \frac{1}{16} - \frac{1}{16} + 0 \right] = \frac{3}{8}$$

6. D