

If three fair coins are each tossed once and at least two of them come up Heads, what is the probability that all three come up Heads?

- (a) $1/4$
- (b) $1/2$
- (c) 1
- (d) $1/3$
- (e) $3/4$
- (f) $1/8$
- (g) $3/8$
- (h) $5/8$
- (i) $2/3$
- (j) 0
- (k) $1/5$
- (l) None of these

Suppose A, B, C are events in sample space S , where A and C are disjoint. The following probabilities are known: $P(A) = 1/8$, $P(B) = 5/12$, $P(C) = 5/8$, $P(AB) = 1/24$, $P(BC) = 1/4$. What is the probability that neither A nor B nor C occur?

- (a) $1/8$
- (b) 0
- (c) $1/24$
- (d) 1
- (e) $1/3$
- (f) $1/12$
- (g) $5/24$
- (h) $1/6$
- (i) $1/4$
- (j) $5/12$
- (k) $3/8$
- (l) None of these

Suppose a sample space $S = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ has equiprobable outcomes. Which one of the following events is independent of the event $\{2, 8\}$?

- (a) $\{1, 3, 5, 8, 9\}$
- (b) $\{2, 4, 5, 8\}$
- (c) $\{1, 3, 5, 7, 9\}$
- (d) $\{1, 5, 9\}$
- (e) $\{3, 6, 7, 9\}$
- (f) $\{3, 5, 6, 7, 9\}$
- (g) $\{1, 4, 6, 7\}$
- (h) $\{4\}$
- (i) $\{4, 5\}$
- (j) $\{1, 3, 4, 5, 6, 7, 9\}$
- (k) $\{9\}$
- (l) None of these