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