An experiment has sample space $S = \{a, b, c, d\}$. The probabilities of events $\{a, b\}$ and $\{a, c\}$ are each 1/6. The events $\{c, d\}$ and $\{b, d\}$ are independent. What is the probability of event $\{d\}$?

- (a) 25/36
- (b) 11/36
- (c) 1/6
- (d) 5/6
- (e) 1/36
- (f) 2/3
- (g) 1/3
- (h) 1/2
- (i) 1/18
- (j) 1/4
- (k) 1/27
- (l) None of these