

Suppose a box contains one banana, two apples, three grapes, and four melons. You reach into the box and pick one piece of fruit, each piece being equally likely. What is the probability the single piece of fruit you pick is a melon or an apple, given it is a grape or an apple?

- (a) $2/5$
- (b) $3/5$
- (c) $1/5$
- (d) $4/5$
- (e) $1/10$
- (f) $3/10$
- (g) $1/2$
- (h) $1/3$
- (i) $7/10$
- (j) $9/10$
- (k) $2/3$
- (l) None of these