

5. Julia selects 3 letters at random, one at a time without replacement, from the word

V A R I A N C E

The discrete random variable  $X$  represents the number of times she selects a letter A.

- (a) Find the complete probability distribution of  $X$ .

(5)

Yuki selects 10 letters at random, one at a time **with** replacement, from the word

D E V I A T I O N

- (b) Find the probability that he selects the letter E at least 4 times.

(3)