Discrete random variable and expectation – AS Further Mathematics Statistics

1. June/2022/Paper_7366/02S/No.1

The discrete random variable X has the following probability distribution

x	-15	18	29
P(X=x)	0.2	0.7	0.1

Find P(X > 18)

Circle your answer.

[1 mark]

0.1	0.2	0.7	0.8
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2. June/2022/Paper_7366/02S/No.3

The discrete random variable A has the following probability distribution function

$$\mathsf{P}(A = a) = \begin{cases} 0.45 & a = 0\\ 0.25 & a = 1\\ 0.3 & a = 2\\ 0 & \text{otherwise} \end{cases}$$

(a) Find the median of A

[1 mark]

(b) Find the standard deviation of *A*, giving your answer to three significant figures.

[4 marks]

(c) Find Var(9A - 2)

[2 marks]