

- In a probability distribution the random variable X takes the values $-1, 0, 1, 2, 4$. The probability distribution table for X is as follows.

x	-1	0	1	2	4
$P(X = x)$	$\frac{1}{4}$	p	p	$\frac{3}{8}$	$4p$

- (i) Find the value of p . [2]

[illegible]

- (ii) Find $E(X)$ and $\text{Var}(X)$. [3]

[illegible]

[illegible]

(iii) Given that X is greater than zero, find the probability that X is equal to 2. [2]

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