

10 The probability distribution of a random variable X is given in the table.

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|------------|---------------|----------------|------|-----|
| x | 0 | 2 | 4 | 6 |
| $P(X = x)$ | $\frac{3}{8}$ | $\frac{5}{16}$ | $4p$ | p |

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

(ii) Two values of X are chosen at random. Find the probability that the product of these values is 0. **[3]**