13 **(a)** The probability distribution of a random variable X is shown in the table, where p is a constant.

x	0	1	2	3
$P(X = x)$	$\frac{1}{12}$	$\frac{1}{4}$	p	$3p$

Two values of X are chosen at random. Determine the probability that their product is greater than their sum. **[5]**

(b) A random variable Y takes n values, each of which is equally likely. Two values, Y_1 and Y_2, of Y are chosen at random.

It is given that $\mathrm{P}(Y_1 = Y_2) = 0.02$.

Find $\mathrm{P}(Y_1 > Y_2)$. **[2]**