5 A fair three-sided spinner has sides numbered 1, 2, 3. A fair five-sided spinner has sides numbered 1, 1, 2, 2, 3. Both spinners are spun once. For each spinner, the number on the side on which it lands is noted. The random variable X is the larger of the two numbers if they are different, and their common value if they are the same.

(a) Show that $P(X = 3) = \frac{7}{15}$. [2]

....

....

....

....

....

....

....

(b) Draw up the probability distribution table for X. [3]

....

....

....

....

....

....

....

....

....

....

....

....

....

(c) Find $E(X)$ and $Var(X)$. [3]