5 **(a)** The random variables W and X have the independent distributions Po(1.2) and Po(2.3) respectively.

(i) Find $P(3 \leqslant W+X \leqslant 5)$. [2]

The random variable S is the sum of 100 independent values of W and 200 independent values of X.

(ii) Use a suitable approximation to find $P(S > 600)$. [6]

(b) The random variable Y has the distribution $\mathrm{Po}(\lambda)$, where $\lambda > 0$.

It is given that $\frac{5}{2}P(Y=3) + P(Y=4) = P(Y=5)$.

Find the value of λ. [3]