> **Formulae**: If X is a discrete random variable taking on values $x_1, x_2, \ldots, x_k$ with respective probabilities $p_1, p_2, \ldots, p_k$, then the mean is given by $\mu_X = \sum_{i=1}^{k} x_i\, p_i$, the variance by $\sigma_X^2 = \sum_{i=1}^{k} (x_i - \mu_X)^2\, p_i$, and $\sigma_X = \sqrt{\sigma_X^2}$.

    The number of contracts X received by a consultant during a randomly selected month is given by the probability distribution below:

Number of Contracts	0	1	2	3	4
Probability		0.20	0.30	0.20	0.15

1. (2 points) Find the probability that X is at most 3.

2. (3 points) Find μ_X, the mean of the probability distribution of X.

3. (5 points) Find σ_X, the standard deviation of the probability distribution of X.