Practice worksheet | Discrete probability distributions

Binomial mean/variance

Name: _____ Date: _____

6 questions | 14 marks

1. $X \sim \text{Bin}(12, 0.25)$. Find its mean and variance. [2 marks]

2. $X \sim \text{Bin}(100, 0.6)$. Find $\text{SD}(X)$. [2 marks]

3. A binomial variable has mean 8 and variance 4. Find n and p. [3 marks]

4. Can a binomial variable have exact mean 5 and exact variance 6? Explain. [2 marks]

5. $X \sim \text{Bin}(40, 0.3)$. Find the variance of the proportion $\frac{X}{40}$. [3 marks]

6. A binomial variable has $p = 1$ and mean 7. State n and describe its spread. [2 marks]