Practice worksheet | Discrete probability distributions

Bernoulli trials

Name: _____ Date: _____

6 questions | 15 marks

1. A coin lands heads with probability 0.55. Define a Bernoulli indicator for tails and give p. [2 marks]

2. B is Bernoulli with $p = 0.4$. Find $E(B)$, $\mathrm{Var}(B)$ and $\mathrm{SD}(B)$. [3 marks]

3. Let B be Bernoulli with $p = 0.1$. A bonus is $Y = 20B$ dollars. Find its mean and variance. [3 marks]

4. If B is Bernoulli with $p = 1$, describe B and find its variance. [2 marks]

5. A variable equals 2 or 7. Explain how a Bernoulli variable B can represent it. [2 marks]

6. Show that a Bernoulli variance cannot exceed $\frac{1}{4}$. [3 marks]