

Answer Sheet for Lab #3: Discrete Random Variables

Name: _____

Report all probabilities in percentages with two decimal places.

1. Fill in the following table using the pdf and cdf for $X \sim \text{Bin}(n, 240)$.

$X \sim \text{Bin}(n, 240)$			
	$\pi = 0.46$	$\pi = 0.50$	$\pi = 0.56$
$P(X > 130)$			
$\text{Pr}(X < 118)$			
$\text{Pr}(X \leq 107 \text{ or } X \geq 132)$			

2. Fill in the following table using the pdf and cdf for $X \sim \text{Pois}(\lambda)$.

$X \sim \text{Pois}(\lambda)$			
	$\lambda = 94$	$\lambda = 100$	$\lambda = 115$
$P(X > 115)$			
$\text{Pr}(X < 128)$			
$\text{Pr}(94 \leq X \leq 122)$			

3. Fill in the following table using the pdf and cdf for $X \sim \text{Hyper}(3000, 1800, n)$.

$X \sim \text{Hyper}(3000, 1800, n)$			
	$n = 280$	$n = 300$	$n = 325$
$P(X < 180)$			
$\text{Pr}(X > 185)$			
$\text{Pr}(160 \leq X \leq 190)$			