Lesson 7.1 Practice: Discrete Random Variables

School Launch · Statistics · Unit 7: Random Variables · Worksheet A

Calculator / tables

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. X takes values 2, 3, 4, 5 with probabilities $\frac{3}{7}$, $\frac{1}{14}$, $\frac{3}{14}$, $\frac{2}{7}$. Find $P(X \geq 4)$. EASY

2. X takes values 0, 3, 4, 5 with probabilities $\frac{1}{6}$, $\frac{1}{3}$, $\frac{1}{3}$, $\frac{1}{6}$. Find $P(X \geq 5)$. EASY

3. X takes values 0, 1, 3, 5 with probabilities $\frac{2}{9}$, $\frac{2}{9}$, $\frac{2}{9}$, $\frac{1}{3}$. Find $P(X \geq 1)$. EASY

4. X takes values 1, 2, 3, 5 with probabilities $\frac{2}{3}$, $\frac{1}{9}$, $\frac{1}{9}$, $\frac{1}{9}$. Find $P(X \geq 5)$. MEDIUM

5. X takes values 0, 3, 4, 5 with probabilities $\frac{1}{10}$, $\frac{1}{2}$, $\frac{1}{10}$, $\frac{3}{10}$. Find $P(X \geq 5)$. MEDIUM

6. X takes values 0, 3, 4, 5 with probabilities $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{12}$, $\frac{1}{12}$. Find $P(X \geq 3)$. MEDIUM

7. X takes values 0, 2, 3, 5 with probabilities $\frac{3}{17}$, $\frac{3}{17}$, $\frac{5}{17}$, $\frac{6}{17}$. Find $P(X \geq 5)$. MEDIUM

8. X takes values 0, 2, 3, 4 with probabilities $\frac{1}{10}$, $\frac{1}{5}$, $\frac{3}{10}$, $\frac{2}{5}$. Find $P(X \geq 4)$. HARD

9. X takes values 1, 2, 4, 5 with probabilities $\frac{3}{10}$, $\frac{2}{5}$, $\frac{1}{5}$, $\frac{1}{10}$. Find $P(X \geq 2)$. HARD

10. X takes values 1, 2, 4, 5 with probabilities $\frac{2}{7}$, $\frac{3}{7}$, $\frac{1}{7}$, $\frac{1}{7}$. Find $P(X \geq 2)$. HARD