Lesson 7.3 Practice: Transforming and Combining 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. Independent X (mean 25, SD 4) and Y (mean 47, SD 5). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). EASY

2. Independent X (mean 41, SD 6) and Y (mean 19, SD 8). Find the mean and SD of $X - Y$ (SD to the nearest hundredth). EASY

3. Independent X (mean 48, SD 4) and Y (mean 11, SD 5). Find the mean and SD of $X - Y$ (SD to the nearest hundredth). EASY

4. Independent X (mean 35, SD 3) and Y (mean 48, SD 6). Find the mean and SD of $X - Y$ (SD to the nearest hundredth). MEDIUM

5. Independent X (mean 22, SD 5) and Y (mean 36, SD 6). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). MEDIUM

6. Independent X (mean 37, SD 8) and Y (mean 35, SD 8). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). MEDIUM

7. Independent X (mean 22, SD 2) and Y (mean 11, SD 4). Find the mean and SD of $X - Y$ (SD to the nearest hundredth). MEDIUM

8. Independent X (mean 20, SD 5) and Y (mean 32, SD 2). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). HARD

9. Independent X (mean 46, SD 6) and Y (mean 41, SD 7). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). HARD

10. Independent X (mean 44, SD 3) and Y (mean 21, SD 5). Find the mean and SD of $X + Y$ (SD to the nearest hundredth). HARD