Lesson 2.6 Practice: Transforming Data

School Launch · Statistics · Unit 2: Describing Data with Numbers · 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. A data set has mean 50 and standard deviation 2. Each value is transformed by $y = \frac{1}{2}x - 10$. Find the new mean and standard deviation. EASY

2. A data set has mean 77 and standard deviation 11. Each value is transformed by $y = \frac{9}{5}x + 24$. Find the new mean and standard deviation. EASY

3. A data set has mean 21 and standard deviation 9. Each value is transformed by $y = \frac{9}{5}x - 11$. Find the new mean and standard deviation. EASY

4. A data set has mean 31 and standard deviation 5. Each value is transformed by $y = 3x + 10$. Find the new mean and standard deviation. MEDIUM

5. A data set has mean 49 and standard deviation 2. Each value is transformed by $y = 3x + 21$. Find the new mean and standard deviation. MEDIUM

6. A data set has mean 69 and standard deviation 12. Each value is transformed by $y = \frac{9}{5}x - 10$. Find the new mean and standard deviation. MEDIUM

7. A data set has mean 22 and standard deviation 6. Each value is transformed by $y = 2x - 18$. Find the new mean and standard deviation. MEDIUM

8. A data set has mean 49 and standard deviation 2. Each value is transformed by $y = \frac{1}{2}x + 4$. Find the new mean and standard deviation. HARD

9. A data set has mean 24 and standard deviation 2. Each value is transformed by $y = 2x + 9$. Find the new mean and standard deviation. HARD

10. A data set has mean 55 and standard deviation 7. Each value is transformed by $y = \frac{9}{5}x - 9$. Find the new mean and standard deviation. HARD