Lesson 13.1 Practice: Scatter Plots and Correlation

School Launch · Algebra I · Unit 13: Data and Statistics: Scatter Plots and Lines of Fit · Worksheet A

No calculator

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. Describe the association (positive, negative or none) in the data: $(3, 4)$, $(7, -2)$, $(8, -2)$, $(9, -4)$. EASY

2. Describe the association (positive, negative or none) in the data: $(7, -4)$, $(9, -5)$, $(11, -7)$, $(12, -7)$. EASY

3. Describe the association (positive, negative or none) in the data: $(2, 6)$, $(9, -14)$, $(10, -16)$, $(12, -21)$. EASY

4. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(1, 2)$, $(6, -11)$, $(7, -18)$, $(9, -20)$, $(10, -23)$. MEDIUM

5. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(1, 5)$, $(3, -5)$, $(8, -19)$, $(9, -22)$, $(12, -28)$. MEDIUM

6. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(1, 3)$, $(4, 15)$, $(7, 28)$, $(8, 30)$, $(11, 41)$. MEDIUM

7. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(2, 5)$, $(6, 17)$, $(9, 29)$, $(10, 34)$, $(11, 39)$. MEDIUM

8. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(1, 12)$, $(2, 13)$, $(6, 16)$, $(9, 21)$, $(10, 21)$, $(11, 21)$. HARD

9. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(5, 16)$, $(6, 19)$, $(7, 27)$, $(8, 29)$, $(9, 32)$, $(10, 38)$. HARD

10. Find the least-squares line $\hat{y} = a + bx$ (round to 2 decimals) for: $(1, 4)$, $(5, -7)$, $(7, -13)$, $(8, -14)$, $(10, -22)$, $(11, -23)$. HARD