

Name _____

Date _____

Assessing Overlapping Data Sets - Independent Practice Worksheet

Complete all the problems.

1. Ethan ran food vendors stands at two different water parks. Ethan wanted to compare the mean amount of money between the two stands. Each stand has eight cash registers. He thinks that there will be a greater variability in the indoor water park as compared to the outdoor water park.



Indoor Water Park – Number of dollars in the registers:

55, 47, 36, 25, 50, 75, 63, 60

Outdoor Water Park – Number of dollars in the registers:

45, 49, 53, 20, 62, 50, 58, 70

- In which park does the average cash register have more money?
- What is the difference between the average cash value of the registers between parks?
- The indoor water park's largest three registers had 60, 55, and 75 dollars each. The Outdoor water park best three registers had 45, 53, and 70 dollars each. Which location had a greater variability of dollar value between their top registers?

2. Julia wanted to compare the mean number of sales in a week between shop one and shop two. She used sales statistics from the sales book.

Shop One – sales (in \$)

36, 41, 63, 42, 48, 50, 53

Shop Two – sales (in \$)

70, 73, 78, 80, 75, 85, 69

- Which shop average sales was higher?
- What is the average sales difference between both shops?



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3. Chloe wanted to compare the mean age of brown belt Karate students and mean age of black belt Karate students

Brown Belts Ages

12, 13, 18, 16, 17, 16, 9, 10, 14

Black Belts Ages

15, 16, 19, 12, 11, 10, 11, 13, 14



- a. Which group of students are older, on average?
- b. What is the average age difference?
- c. The ages of best brown belt students are 13, 10, and 16. The ages of the best black belt students are 11, 14, and 19. Which group of students has greater age variability? Explain your answer.

4. Olivia wanted to compare the mean expenses of Joy and Tom over 8 days.

Joy – expenses for consecutive 8 days.

45, 86, 12, 74, 32, 59, 62, 29

Tom – expenses for consecutive 8 days.

26, 89, 91, 47, 36, 84, 57, 61

- a. Which person's average expenses are higher?
- b. On the average day, what is the difference between their expenses?



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5. Tyler and Brandon work for Nicholas. They buy electronic parts for Nicholas's teams to put together. Nicholas wanted to compare the mean amount of items purchased by Tyler and Brandon over a week.

Number of items purchased by Tyler in a week

142, 123, 141, 156, 189, 174, 196

Number of items purchased by Brandon in a week

136, 136, 185, 147, 169, 185, 124

- a. Which person average items purchased was higher?
- b. What is the difference between the average number of items purchased?

6. Elizabeth wanted to compare the mean age of Daniel's students and age of Kayla's students.

Ages of Daniel's students

37, 28, 69, 78, 15, 47

Ages of Kayla's students

49, 69, 58, 27, 36, 80

- a. Is Daniel's or Kayla's average student older?
- b. What is the average age difference between both classes?
- c. The Daniel's best three students are ages 15, 37, and 78. The Kayla best three students are 27, 69, and 80. Which class has a greater variability of age among their top students?

