Name: _____ Date: _____

Chapter 12 Problems of the Week

1. a) The mean of a set of integers is 7. The sum of the integers is 84. How many integers are in the set? **b)** Write a set of numbers that would satisfy part a).	**2.** In his last bowling game, Shaun scored 172. He raised his scoring mean from 156 to 157. To raise his mean +1, what must Shaun score the next time he plays?
3. Determine the sums of the positive factors of 30, 32, 33, 34, 35, 36, 38, and 39. Divide the sums by the number of factors, including itself. Which of the numbers have the same result?	**4.** Sam is studying the average amount of bottled water students drink each day. If he studies 100 students for one week, what useful information might the mean give? the mode? the median?
5. A shoe store analyses last year's sales to determine what sizes to order this year. Which information would be the most helpful: mean, median or mode? Explain your thinking.	**6.** A newspaper article claims the average family has 2.1 people in the home, yet no family actually has that amount. Is the "average" in this case the mean, median, or mode? How do you know?
7. Is the mean of two numbers even or odd if the two numbers are **a)** both odd? **b)** both even?	**8.** Write a set of consecutive odd integers, all positive. Is the mean even or odd if the set has **a)** an odd number of integers? **b)** an even number of integers?
9. In baseball, you can calculate *batting average* by dividing the number of hits by the number of attempts. If a baseball player's batting average is 0.200, what is the most he can improve his average with one more hit? Express your answer to the nearest thousandth.	**10.** The mean of five consecutive integers is 8. What is the sum of the largest and smallest integer?