



Problem of the Week

Problem B

Grain Guess

Caden's class wants to win a prize for the closest estimate to the number of grains of rice in a 1 kg bag of rice.



They have been given three clues:

Clue (1): The number of grains is a 5-digit even number.

Clue (2): The sum of the five digits in the number is 15.

Clue (3): The number, rounded to the nearest hundred, is 51 200.

- (a) Help Caden's class win the prize. Use the given clues to determine all possible estimates of the number of grains of rice in the bag.
- (b) Kendala, one of Caden's classmates, found that the mass of a single grain of rice depends on the type, ranging from about 20 to 45 milligrams. When she used this to calculate how many grains were in the 1 kg bag, did her answer suggest the rice was of the lighter or heavier type?