Additional Problems.

Problem 8.6. In a herd of 101 cows, each cow weighs an integer number of kilograms. If a cow is removed from the herd, the remaining cows can be divided into two groups of 50 cows each, with the total weight of all the cows in both groups being equal. Prove that all the cows weigh the same.

Problem 8.7. Each of the letters F, I, V, E in this multiplication stands for a different digit:

$$\begin{array}{cccccccc}
 & & & & F & I & V & E \\
 & & & \times & F & I & V & E \\
\hline
 & & & * & * & * & * & F \\
 & & * & * & * & * & I & \\
 & * & * & * & * & V & & \\
* & * & * & * & E & & & \\
\hline
* & * & * & * & * & * & * & *
\end{array}$$

What are the values of the letters?

Additional Problems.

Problem 8.6. In a herd of 101 cows, each weighs a whole number of kilograms. If any one cow is removed from the herd, the remaining cows can be divided into two groups of 50 cows each with the total weight of all cows in the first group equal to the total weight of all the cows in the second group. Prove that all of the cows weigh the same.

Problem 8.7. Each of the letters F, I, V, E in this multiplication stands for a different digit:

$$\begin{array}{cccccccc}
 & & & & F & I & V & E \\
 & & & \times & F & I & V & E \\
\hline
 & & & * & * & * & * & F \\
 & & * & * & * & * & I & \\
 & * & * & * & * & V & & \\
* & * & * & * & E & & & \\
\hline
* & * & * & * & * & * & * & *
\end{array}$$

What are the values of the letters?