Problem of the Week
Problem E
An Equal Distribution?

A group of workers won a cash award. All of the money was to be distributed among the group members in the following way:

$x to the oldest member of the group plus $\frac{1}{16}$ of what remains, then

$2x to the second oldest member of the group plus $\frac{1}{16}$ of what then remains, then

$3x to the third oldest member of the group plus $\frac{1}{16}$ of what then remains, and so on.

When the distribution of the money was complete, each group member received the same amount and no money was left over. Determine the number of members in the group.