



Problem of the Week Grade 11 and 12

How Many Children Are There Anyway?

A man died leaving some money in his estate. All of this money was to be divided among his children in the following manner:

$\$x$ to the first born plus $\frac{1}{16}$ of what remains, then

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

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

When the distribution of the money was complete, each child received the same amount and no money was left over. Determine the number of children.

