



## Problem of the Week

### Problem D

### Fair Split Collective

A team of employees completed a large project. They were recognized with a monetary bonus to share among themselves. The ages of the team members are consecutive integers and no one on the team has the same age. The oldest team member is 45.

The bonus was paid out as follows:

- (i) \$1000 to the oldest member of the project team plus  $\frac{1}{10}$  of what remains, then
- (ii) \$2000 to the second oldest member of the project team plus  $\frac{1}{10}$  of what then remains, then
- (iii) \$3000 to the third oldest member of the project team plus  $\frac{1}{10}$  of what then remains, and so on.

After all of the bonus money had been distributed, each member of the project team had received the same amount and no money was left over. What is the age of the youngest member of the project team?

