## Beauty contest

You are kindly asked to write, on the other sheet that you received, an *integer* number between 1 and 100 (extremes included). I invite you *not to discuss among you the choice* that you are going to make.

The possible outcomes of this game are: *win* or *lose*. It may happen that there is more than one winner. In such a case, winners will share the satisfaction they get from winning...

Who wins? The sheets will be collected, it will be calculated the resulting average number and who will get closest to 2/3 of this value wins.

In formula, the winner(s) is who writes the number closest to:

$$\frac{2}{3} \cdot \frac{\sum_{i=1}^{n} k_i}{n}$$

Here, n is the number of players and  $k_i$  is the number written by player i