Here is the formula to work out the corrected time from the measured one for the Physics Relay.

In order to be a valid team for the age related prize the total age of the team must be greater than 132 years.

For each runner calculate effective age E

$$\begin{aligned} E &= 33, \text{if age} < 33 \\ E &= \text{age if age} \geq 33 \end{aligned}$$

Work out mean E for the team ($\hat{E} = \frac{\sum E}{4}$)
N_w is the number of women in the team

Corrected time $=$ actual time $\times (1 - 0.1 \times (N_w/4)) - 8.6 \times (\hat{E} - 33)$