

Pandemoonium

USACO Game Contest 2013

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github.com/usaco/Pandemoonium

1 What is Pandemoonium

You take the role of a farmer, competing against other farmers, trying to get as much milk as possible in one day. A day is subdivided into rounds. Each cow can produce a fixed amount of milk per round. In each round, each farmer simultaneously chooses a cow to milk. If more than one farmer selects the same cow, they subdivide the milk evenly (rounded down to the next largest integer – fighting causes spillage!). At the end of the day, the farmer with the most milk is the winner.

2 Constraints

Number of Players	N	$3 \leq N \leq 16$
Number of Cows	M	$3 \leq M \leq 100$
Number of Rounds	R	$1000 \leq R \leq 50000$
Milk Values	C_i	$N \leq C_i \leq 2^{32}/R$