

## Problem 1 (30 points maximum)

- Correct value of $P_{0}$ in question a): 8 points;
- Correct value of $P_{0}$ in question b): 8 points;
- Proof that all values $P \geq P_{0}$ are possible: 7 points;
- Proof that smaller $P_{0}$ do not satisfy the requirement: 7 points.


## Problem 2 (30 points maximum)

- The correct and properly justified answer to a): 15 points;
- The correct and properly justified answer to b): 15 points;
- Incorrect or missing answer, but some ideas are correct: 1 to 5 points.


## Problem 3 (40 points maximum)

For each of the questions a)-d) alone

- A correct construction is presented and clearly described: 10 points, but
- If the number of folds is $m$ greater than the minimum, then $10-m$ points.

