



Problem of the Week

Problem E

Picking Boxes

Billy's Box Company sells boxes with the following very particular restrictions on their dimensions.

- The length, width, and height, in cm, must be all integers.
- The ratio of the length to the width to the height must be $4 : 3 : 5$.
- The sum of the length, width, and height must be between 100 cm and 1000 cm, inclusive.

Stefan bought the box with the smallest possible volume, and Lali bought the box with the largest volume less than 4 m^3 .

Determine the dimensions of Stefan and Lali's boxes.

