# Problem of the Week Problem C <br> Dollhouse 

The first level of a dollhouse is in the shape of a rectangle. Its floor plan is shown in the following diagram.


Both the mudroom and the kitchen are square with areas of $400 \mathrm{~cm}^{2}$ and $2500 \mathrm{~cm}^{2}$, respectively. The living room is rectangular with an area of $3000 \mathrm{~cm}^{2}$. Determine the area of the rectangular storage room.

