

How Tall is the Peace Tower?

All-Day Sprint
College of Charleston Math Meet 2009

In the remote country of Socarolinia, they measure distance in *chucks*. In the neighboring country of Nocarolinia, distance is measured in *clacks*. To convert from one to the other, it is useful to know that

$$11 \text{ chucks} = 12 \text{ clacks.}$$

A tower is going to be built on the border of the two countries. As a symbol of solidarity it was decided that the height of the tower would be chosen so that it is a whole number written in terms of either unit and so that you merely have to rearrange the order of the digits to convert it from chucks to clacks (or vice versa). What will the height in clacks be if it is selected to be the smallest, positive number meeting these criteria?

Answer: The tower will be exactly _____ clacks tall.