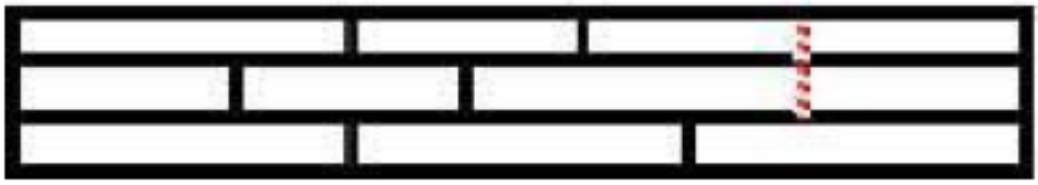
Your niece was given a set of blocks for her birthday, and she has decided to build a panel using 3”×1” and 4.5”×1" blocks. For structural integrity, the spaces between the blocks must not line up in adjacent rows. For example, the 13.5”×3” panel below is unacceptable, because some of the spaces between the blocks in the first two rows line up (as indicated by the dotted line).



There are 2 ways in which to build a 7.5”×1” panel, 2 ways to build a 7.5”×2” panel, 4 ways to build a 12”×3” panel, and 7958 ways to build a 27”×5” panel. How many different ways are there for your niece to build a 48”×10” panel? The answer will fit in a 64-bit integer. Write a program to calculate the answer.