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Coin Partitions

Problem 78

Let $p(n)$ represent the number of different ways in which n coins can be separated into piles. For example, five coins can be separated into piles in exactly seven different ways, so $p(5) = 7$.

OOOOO
OOOO O
OOO OO
OOO O O
OO OO O
OO O O O
O O O O O

Find the least value of n for which $p(n)$ is divisible by one million.