

Divisibility Problem

Each time a customer purchases at least \$10 in groceries, they receive a scratchable game piece that when scratched, reveals a number between 1 and 50 (inclusive).

The goal is to combine game pieces that have a sum of exactly 50. Doing so would give you a \$50 discount on your next purchase.

Here is a collection of the numbers on the game pieces collected by a group of people working together.

48 30 6 45 3 12 42 21 9 36 18 18 24 12 3 24 39 48

6 27 6 30 24 42 36 48 9 39 33 15 18 21 3 6 18 24

What, if any, combinations would give you a sum of 50? Can you prove your results?