

NMSU MATH PROBLEM OF THE WEEK

Solution to Problem 3

Fall 2025

Problem 3

Find the number of ways to make \$12.85 with only dimes and quarters. Justify your answer.

Solution. To make \$12.85 only from dimes and quarters, we need at least one quarter, but no more than 51 quarters since $(51)(0.5) = 12.50$. Moreover, the number of quarters must be odd. Therefore, we can have 1, 3, 5, $\dots$, 47, 49, or 51 quarters. This gives 26 different options. Thus, there are 26 different ways to make \$12.85 only from dimes and quarters.