



Problem of the Week

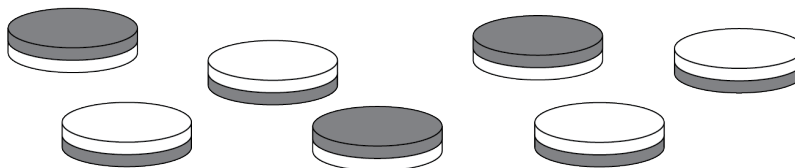
Problem D

Flipping Coins

Yousaf has several plastic coins that are white on one side and grey on the other. He places 16 of these coins on a table with their white sides facing up, and flips them according to the following rules:

1. Flipping a coin changes the colour of the side facing up from either white to grey or from grey to white.
2. Yousaf flips exactly 3 different coins at a time. Each time he does this it is called a *step*.

Determine the fewest steps required until all 16 coins have their grey sides facing up.



EXTENSION:

Suppose Yousaf now starts with 2026 coins on the table with their white sides all facing up. Determine the fewest steps required until all 2026 coins have their grey sides facing up.