

Consider a circular necklace with 2013 beads. Each bead can be painted either white or green. A painting of the necklace is called good if among any 21 successive beads there is at least one green bead. Prove that the number of good paintings of the necklace is odd.

(Two paintings that differ on some beads, but can be obtained from each other by rotating or flipping the necklace, are counted as different paintings.)