Q 4 number grouping and selection

Solution ① understand

['123', '456', '789']

↓   ↓   ↓

1   +   4   + 7 = 12 → even ✓

② method (1) count the even and old nums

for loop to get '123'

even_count   odd_count

1   2

456

even odd

2   1

789

even odd

1   2

(2) ways_even = even_count

$$\text{ways\_odd} = \text{odd\_come}$$

(3) $\text{ways\_even\_new} = \text{ways\_even} \times \text{even}$
$$+ \text{way\_odd} \times \text{odd}$$

$$\text{ways\_odd\_new} = \text{ways\_old} \times \text{even}$$
$$+ \text{way\_even} \times \text{odd}$$