

2025 Sept AMC 10 Week 1 Day 2 - Permutation

- 1 The number of six-digit numbers formed from the digits $0, 1, 2, 3, 4, 5$ in which odd and even digits alternate and no digit is repeated is () .
- A. 72 B. 60 C. 48 D. 36 E. 12
- 2 Five people A, B, C and two others stand in a row, with A not at either end, and exactly two people standing between B and C . How many different arrangements are there?
- A. 20 B. 16 C. 12 D. 8 E. 6
- 3 If the sum of the digits of a five-digit number is 3 , then the total number of such five-digit numbers is () .
- A. 10 B. 12 C. 15 D. 18 E. 20
- 4 There are 5 cars to be parked in 6 adjacent parking spaces. Truck A is wider and occupies two spaces when parked, and car B cannot be parked next to truck A. How many different parking arrangements are there?
- A. 72 B. 144 C. 108 D. 96 E. 108
- 5 Sammy uses a permutation of the six digits $1, 4, 0, 3, 2, 2$ as his six-digit bank card password. If there is exactly one digit between the two 2 's, and 1 and 4 are adjacent, then the number of possible passwords is () .
- A. 48 B. 32 C. 24 D. 16 E. 8