#include <iostream>

#include <string>

using namespace std;

int translate(char seq[]) {

int weights[] = { 7, 4, 2, 1, 0 };

int total = 0;

for (int i = 0; i < 5; i++) {

total += (seq[i] - '0') \* weights[i];

}

if (total == 11) {

return 0;

}

else {

return total;

}

}

string processCode(string inputCode) {

string postalCode = "";

char subGroup[6] = "";

int subIndex = 0;

for (int i = 1; i < 26; i++) {

subGroup[subIndex++] = inputCode[i];

if (subIndex == 5) {

subGroup[subIndex] = '\0';

int number = translate(subGroup);

postalCode += to\_string(number);

subIndex = 0;

}

}

return postalCode;

}

int main() {

string inputCode;

cout << "Enter a 27-digit barcode: ";

cin >> inputCode;

string postalCode = processCode(inputCode);

postalCode = postalCode.substr(0, 5);

cout << "Zip code: " << postalCode << endl;

return 0;

}