namespace Problem02\_EncodedAnswers

{

using System;

public class EncodedAnswers

{

public static void Main(string[] args)

{

int n = int.Parse(Console.ReadLine());

string result = null;

int countA = 0;

int countB = 0;

int countC = 0;

int countD = 0;

for (int i = 0; i < n; i++)

{

uint answerAsNumber = uint.Parse(Console.ReadLine());

string answer;

if (answerAsNumber % 4 == 0)

{

answer = "a";

countA++;

}

else if (answerAsNumber % 4 == 1)

{

answer = "b";

countB++;

}

else if (answerAsNumber % 4 == 2)

{

answer = "c";

countC++;

}

else

{

answer = "d";

countD++;

}

result += answer + ' ';

}

Console.WriteLine(result);

Console.WriteLine("Answer A: {0}\nAnswer B: {1}\nAnswer C: {2}\nAnswer D: {3}", countA, countB, countC, countD);

}

}

}