

Digital assignment 2

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First question:

Samantha is an avid collector of lucky numbers. She believes that each number has its own unique energy and can bring good luck if used correctly. One day, she came across a new number that had a mysterious aura and she could not resist finding out more about it. She heard that the number may fall within the digit combinations, so she decided to sum up all the four-digit even numbers and then keep adding the digits of the summation until a single digit is found to unlock its secrets. Later, she must check again whether the single digit is odd or even. If odd, then you must say “Odd Found” otherwise you must return “Even found”. Write a C program to help her in finding the mysterious number.

Answer:

```
#include <stdio.h>
int main() {
    int i, j, sum, digit, odd_found = 0;
    sum = 0;
    for (i = 1000; i < 10000; i += 2) {
        sum += i;
    }
    while (sum > 9) {
        digit = 0;
```

```
    while (sum > 0) {
        digit += sum % 10;
        sum /= 10;
    }
    sum = digit;
}
if (sum % 2 == 1) {
    printf("Odd Found\n");
    odd_found = 1;
} else {
    printf("Even Found\n");
}
return odd_found;
}
```