palindrome.c

```c
/**
 * C program to check if a number is a palindrome
 * Palindrome: A number that remains the same when its digits are reversed
 * e.g., 121, 1331
 */
#include <stdio.h>

int main() {

    int num, originalNum, reversedNum = 0, remainder;
    printf("Enter an integer: ");
    scanf("%d", &num);

    originalNum = num;

    // Reversing the number
    while (num != 0) {
        remainder = num % 10;
        reversedNum = reversedNum * 10 + remainder;
        num = num / 10;
    }

    if (originalNum == reversedNum) {
        printf("%d is a palindrome.\n", originalNum);
    } else {
        printf("%d is not a palindrome.\n", originalNum);
    }

    return 0;
}

/**
 * using functions
#include <stdio.h>
int isPalindrome(int num) {
    int originalNum = num;
    int reversedNum = 0, remainder;

    while (num != 0) {
        remainder = num % 10;
        reversedNum = reversedNum * 10 + remainder;
        num = num / 10;
    }

    return originalNum == reversedNum;
}

int main() {
    int num;
    printf("Enter an integer: ");
    scanf("%d", &num);
```

```
52
53      if (isPalindrome(num)) {
54          printf("%d is a palindrome.\n", num);
55      } else {
56          printf("%d is not a palindrome.\n", num);
57      }
58
59      return 0;
60  }
61
62   */
```