

Homework #1

Due date: 23:59, October 8th, Thursday, 2015

Problem statement

A palindrome is a number or a text phrase that reads the same backward as forward, each of the following five-digit integers is a palindrome: 12321, 55555, 45554 and 11611. Write a program that reads in a five-digit integer and determines whether it's a palindrome.

Requirements

1. Write a C program that is capable of handling input.
2. See the sample run below for the required output format.
3. Your program shall consist of only one function **main**.
4. Your program should be capable of checking if the input is a five-digit integer.

Submission

Be sure to upload your source code to E3 by the due date and name your file as “**HW1_XXXXXXX.c**”, where **XXXXXXX** is your student ID.

Sample run

```
Enter a 5-digit integer: 123456
Your input is not a 5-digit integer. Exit
```

```
Enter a 5-digit integer: 1234
Your input is not a 5-digit integer. Exit
```

```
Enter a 5-digit integer: 12321
It is a palindrome.
```

```
Enter a 5-digit integer: 12345
It is not a palindrome
```

Hint

Use the division and modulus operators to separate the number into its individual digits.