# Number Manipulations

Read a number **n** from the console and perform the following operations with it.

#### Step 1

Print the last digit of **n**.

|  |  |
| --- | --- |
| **n** | **Output** |
| 145 | 5 |

#### Step 2

Print the last 3 digits of **n**. If the number has less than 3 digits, print all of them.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **n** | **Output** |  | **n** | **Output** |
| 157234 | 234 |  | 13 | 13 |

Step 3

**Print the the p-th digit of n counted from right to left.**

|  |  |  |
| --- | --- | --- |
| **n** | **p** | **Output** |
| 475839 | 4 | 5 |

#### Step 4

Print all digits separated by dash '-' lines.

|  |  |
| --- | --- |
| **n** | **Output** |
| 12345 | 1-2-3-4-5 |

#### Step 5

Print how many digits **n** has.

|  |  |
| --- | --- |
| **n** | **Output** |
| 76143876 | 8 |

#### Step 6

Reverse and print the digits of **n**.

|  |  |
| --- | --- |
| **n** | **Output** |
| 123456 | 654321 |

#### Step 7

Print the sum of all digits of **n**.

|  |  |
| --- | --- |
| **n** | **Output** |
| 12345 | 15 |

#### Step 8

Split **n** in half. Print both halves on separate lines. If the number has odd length of it's digits:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **n** | **Output** |  | **n** | **Output** |
| 1234567 | 1234  567 |  | 5231 | 52  31 |

#### Step 9

Find whether the first or the second half has a bigger sum.

**Examples**:

* 1245 – first half has sum 1+2=**3** and second half has sum 4+5=**9**. Print "second half is greater".
* 3621 – first half has sum 3+6=**9** and second half has sum 2+1=**3**. Print "first half is greater".
* 5739 - first half has sum 5+7=**12** and the second half has sum 3+9=**12**. Print "equal".

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **n** | **Output** |  | **n** | **Output** |
| 5739 | 1234  567 |  | 5231 | 52  31 |

#### Step 10

Find the product of all even and all odd digits of the number.

**Example**: n = 431847

* Even numbers have product 4\*8\*4=128
* Odd numbers have product 3\*1\*7=21

|  |  |
| --- | --- |
| **n** | **Output** |
| 431847 | Even product: 128  Odd product: 21 |