HW2 Constraint

1. Cast Operation

- Change below characters into integer by using cast operation(static_cast<int>())

  H e l l o , W o r l d ! 1 7 0 4 2 7 ^ _ ^

- You must use static_cast<int>() to change any character into int.

- Do not use '' expression to get int value.

- Print each letter casted into integer on one line.

- This Problem does not get any input. Just print out each numbers casted from each alphabet, divided by one space between.

2. Integer dividing by digits

- Divide a five-digit integer into 5 integers and print them with spaces between.

2-1. Input & Output example

```
42339    //input
4 2 3 3 9 //output
```

3. Employeers

- Create a class called Employee that includes 3 pieces of information below as data members

```
string first_name
string last_name
int monthly_salary
```

- string first_name saves first name of a employee

- string last_name saves last name of a employee

- int monthly_salary saves monthly salary of a employee

- Provide a setter and getter functions for each data member.

- If monthly_salary is not positive, set it to 0.

- Write a test program that demonstrate class Employee's capabilities(first_name, last_name, and *yearly salary*) under the form below

- At the first row, read the number of lines you will enter.

- After that, write each information with spaces between, in an order of first_name , last_name , and monthly_salary .

```
Employee[<first_name> <last_name>]_Salary : $<yearly_salary>
```

- Give each Employee 10% raise and display capabilities again
- If the yearly_salary calculated is not int type, you can use static_cast() we used at Problem 1.

3-1. Input example
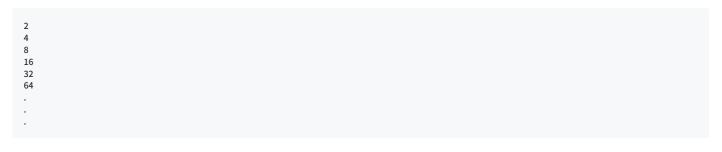
```
2
First Last 10000
Second bean 22222
```

3-2. Output example

```
Employee[First Last]_Salary : $120000
Employee[Second bean]_Salary : $266664
Employee[First Last]_Salary : $132000
Employee[Second bean]_Salary : $293330
```

4. Infinite powers of the integer 2

- Write a program that prints the powers of the integer 2
- You don't have to submit this program, but make sure you build your own program, and write its results in your report.

4-1. Output example

```
2
4
8
16
32
64
.
.
.
```

5. Mail order house program

- There are 5 products whose retail prices are :

  Product 1 - $2.98
  Product 2 - $4.50
  Product 3 - $9.98
  Product 4 - $4.49
  Product 5 - $6.87

- Write a program that reads a series of pairs of numbers as follows.

  product_number
  quantity_sold

- You can enter endlessly many numbers, until you type `Closed` .

- Your program should use a switch statement to determine the retail price for each product.

- Calculate and Display the total retail value of all products sold.

5-1. Input example

```
1 5
2 10
1 3
3 8
2 10
4 8
Closed
```

5-2. Output example

```
Total retail value : 229.6
```