

Introduction to Computers and Programming LAB-62014/10/22

- ✧ You cannot use **Iteration Statements** (for, while) even if you have learned them.
- ✧ Your output must be in our sample output format.

1. Write a program that asks the user to enter an integer number, and then it will determine if the number is pairwise relatively prime with 2, 3, or 5. **Noted that the format must be followed!** (X and Y are relatively prime means the Greatest Common Divisor of X and Y is 1)

```
Please Enter a Number: 1
1 is pairwise relately prime with 2, 3, 5
```

```
Please Enter a Number: 3
3 is pairwise relately prime with 2, 5
```

```
Please Enter a Number: 10
10 is pairwise relately prime with 3
```

```
Please Enter a Number: 30
30 is pairwise relately prime with nobody
```

2. Elementary children are taught to add multi-digit numbers from right-to-left one digit at a time. Many find the "carry" operation - in which a 1 is carried from one digit position to be added to the next - to be a significant challenge. Your job is to count the number of carry operations for addition of two input number so that educators may assess their difficulty.
Note: Both of two input are 3-digits number.

```
Please input two 3-digits number: 789 111
number of carry operations = 2
請按任意鍵繼續 . . .
```

```
  1
 27
+ 59
---
 86
```

- 3.



For most corporation, while the base salary usually is a fixed amount per month, bonus payments to employees more often than not vary depending on known criteria. In Ting Hsin international group, the criteria is according to how much you got by selling oil per month. The criteria is shown below,

When the profit p , $p \leq 100000$, the bonus payment is 1% of the profit.

When the profit p , $100000 < p \leq 200000$, the bonus payment is 2% of the profit.

When the profit p , $200000 < p \leq 400000$, the bonus payment is 3% of the profit.

When the profit p , $400000 < p \leq 600000$, the bonus payment is 4% of the profit.

When the profit p , $600000 < p \leq 1000000$, the bonus payment is 5% of the profit.

When the profit p , $1000000 < p$, the bonus payment is 6% of the profit.

Write a program to calculate the input of the month profit, then output the bonus payment according to criteria of Ting Hsin international group.

Precision in output: display 2 digits after the decimal point.

```
Please input the profit of this month: 600000
The payment = 24000.00
請按任意鍵繼續 . . .
```

4. (Bonus) You are asked to find the angle between the minute hand and the hour hand on a regular analog clock. Assume that the second hand, if there were one, would be pointing straight up at the 12. Give all angles as the smallest positive angles. For example 9:00 is 90 degrees; not -90 or 270 degrees.

```
Please enter the time: 09:00
The answer degree is : 90.00
```

```
Please enter the time: 20:10
The answer degree is : 175.00
```

