

Lesson 1

Input Output

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Variable

```
int a;
```

```
float b;
```

```
unsigned int i = 10;      //can set initial value(初始值)
```

```
char c = '0';
```

```
string name = "Harvard";
```

Variable

Watch out! Type of variable is really important!

cout

```
cout<<"Hello World"<<endl;
```

```
cout<<num<<" ";
```

```
cout<<end_n<<"!="<<answer<<endl;
```

endl

Change to new line.

cin

```
cin>>a;
```

```
cin.get();    //use this function to pause(暫停)
```

```
char str[256];    //declare(宣告) char array
```

```
cin.get(str, 256);
```

Exercise 1

Enter two number, do:

sum(+) 和

difference(-) 差

product(*) 積

quotient(/) 商

remainder(%) 餘數

Something wrong

Why $1/4 = 0$, not 0.25?

If use int type to storage float, will **only take** integer part.

```
int q = 15.791;    //q = 15.xxx
```


How to solve problem?

Change variable's type

```
float quotient_f = (float)a / b; //make sure  
numerator(分子) is float type
```

Exercise 2

Enter two **float** number, also do:

sum, difference, product, quotient, remainder

Something wrong

Why occur compile error(編譯錯誤)?

Cause % operator(運算子) can only use “int variable”.

How to solve problem?

Change variable into `int` type.

```
remainder = (int)a % (int)b;
```