格式化輸出與輸入

輸出、輸入的function

- **printf("格式",[變數]);**

- **scanf("格式",[變數位置]);**

讀寫資料

printf("%f", er);
把 **er** 這個變數輸出到螢幕

scanf("%f", &er);
把輸入的小數存到 **er** 這個變數內

範例 E03_01.c

```c
#include <stdio.h>
int main(void) /* calculate earned run average */
{
    float er, ip, era;
    printf("How many earned runs did you give up?\n");
    scanf("%f", &er);
    printf("How many innings did you pitch?\n");
    scanf("%f", &ip);

    era = 9.0 * er / ip;
    printf("ERA = %.2f\n", era);
    return 0;
}
```

範例 E03_02.c

```c
#include <stdio.h>
int main(void)
{
    int ten = 10;
    int two = 2;

    printf("%d minus %d is %d\n", ten, two, ten-two);
    printf("%d minus %d is %d\n", ten);/*少了兩個參數*/

    return 0;
}
```

輸出:
10 minus 2 is 8
10 minus 2 is 8

範例 E03_05.c

```c
#include <stdio.h>
int main(void)
{
    int i = 2147483647;
    unsigned int j = 4294967295U;

    printf("%d %d %d\n", i, i+1, i+2);
    printf("%u %u %u\n", j, j+1, j+2);

    return 0;
}
```

輸出:
2147483647 -2147483648 -2147483647
4294967295 0 1

範例 E03_06.c

```c
#include <stdio.h>
int main(void)
{
    char ch;

    printf("Please enter a character: ");
    scanf("%c", &ch);
    printf("ASCII code for '%c' is %d.\n", ch, ch);

    return 0;
}
```

範例 E04_05.c

```c
#include <stdio.h>
#define ENGINE 1499.99
int main(void) {
    printf("~%f~\n", ENGINE);
    printf("~%e~\n", ENGINE);
    printf("~%4.2f~\n", ENGINE);
    printf("~%3.1f~\n", ENGINE);
    printf("~%10.3f~\n", ENGINE);
    printf("~%-10.3f~\n", ENGINE);
    printf("~%12.3e~\n", ENGINE);
    printf("~%+4.2f~\n", ENGINE);
    printf("~%010.2f~\n", ENGINE);
    return 0;
}
```

輸出：

```
~1499.990000~
~1.499990e+003~
~1499.99~
~1500.0~
~   1499.990~
~1499.990   ~
~   1.500e+003~
~+1499.99~
~0001499.99~
```