lab2

Q1:

```c
lab2 > C Q1.c > ...
1   #include <math.h>
2   #include <stdio.h>
3
4   int main() {
5       double d = sqrt(x: 2);
6       printf(format: "sqrt 2:%f\n", d);
7           return 0;
8   }
```

```
dgy@dgy-ubuntu ~/g/os (master)> cd lab2
dgy@dgy-ubuntu ~/g/o/lab2 (master)> gcc Q1.c
dgy@dgy-ubuntu ~/g/o/lab2 (master)> ./a.out
sqrt 2:1.414214
dgy@dgy-ubuntu ~/g/o/lab2 (master)> file a.out
a.out: ELF 64-bit LSB pie executable, x86-64, version 1 (SYSV), dynamically linked, interpreter /
lib64/ld-linux-x86-64.so.2, BuildID[sha1]=456af6fd0d435ded7040275dc83ca703292fad6f, for GNU/Linux
 3.2.0, not stripped
dgy@dgy-ubuntu ~/g/o/lab2 (master)>
```

Q2:

```
 3.2.0, not stripped
dgy@dgy-ubuntu ~/g/o/lab2 (master)> cat Q2.c && gcc Q2.c && ./a.out && file a.out
#include <stdio.h>

#define SUM(x) (x)+(x)

int main() {
        printf("Name: Dai Guoyi\n");
        printf("SID: 12011211\n");
}
Name: Dai Guoyi
SID: 12011211
a.out: ELF 64-bit LSB pie executable, x86-64, version 1 (SYSV), dynamically linked, interpreter /
lib64/ld-linux-x86-64.so.2, BuildID[sha1]=040cf7ab19c1f18c387b9a0a3af2988d697265f9, for GNU/Linux
 3.2.0, not stripped
```

Q3:

preprocess c file and header files, compile c files into objcet files, then link object files and static library together

Q4:

Windows is PE（Portable Executable）and Linux is ELF（Executable Linkable Format）

Q5:

Makefile U

lab2 > Makefile

```
1   CC=gcc
2
3   file1: Q1
4       ./Q1
5
6   file2: Q2
7       ./Q2
8
9   % : %.c
10      $(CC) -o $@ $<
11
12  clean:
```

问题 输出 调试控制台 终端 GITLENS

```
dgy@dgy-ubuntu ~/g/o/lab2 (master)> make Q1
gcc -o Q1 Q1.c
dgy@dgy-ubuntu ~/g/o/lab2 (master)> make file1
./Q1
sqrt 2:1.414214
dgy@dgy-ubuntu ~/g/o/lab2 (master)> make file2
gcc -o Q2 Q2.c
./Q2
Name: Dai Guoyi
SID: 12011211
dgy@dgy-ubuntu ~/g/o/lab2 (master)>
```

Q6:

将宏文件展开

```
extern int __overflow (FILE *, int);
# 909 "/usr/include/stdio.h" 3 4

# 3 "defile.c" 2


# 4 "defile.c"
int main(void)
{
    printf("%d", (4*3)+(4*3)*(4*3)+(4*3));
}
```