

## Exercise 1

```
1 #include <stdio.h>
2 #define NAME "Son"
3 #define AGE 20
4 #define PRINT_ADDR puts("address: ...\n");
5 int main(){
6     printf("Name: %s\n", NAME);
7     printf("Age: %d\n", AGE);
8     PRINT_ADDR;
9     return 0;
10 }
```

```
> clang-7 -pthread -lm -o main main.c
> ./main
Name: Son
Age: 20
address: _
> 
```

## Exercise 2

```
main.c
1 #include <stdio.h>
2 #define SQUARE(x) x*x
3 int main(){
4     int num = 20;
5     printf("Square of num : %d\n", SQUARE(num));
6     printf("Square of -5 : %d\n", SQUARE(-5));
7     printf("Square of 2.5: %f\n", SQUARE(2.5));
8     return 0;
9 }
```

```
> clang-7 -pthread -lm -o main main.c
> ./main
Square of num : 400
Square of -5 : 25
Square of 2.5: 6.250000
> 
```

## Exercise 3

```
1 #include <stdio.h>
2 #define DIFF_ABS(x, y) ((x)>(y) ? (x)-(y) : (y)-(x))
3 int main(){
4     printf("difference: %d\n", DIFF_ABS(5, 7));
5     printf("difference: %f\n", DIFF_ABS(1.8, -1.4));
6     return 0;
7 }
```

```
> clang-7 -pthread -lm -o main main.c
> ./main
difference: 2
difference: 3.200000
> 
```

## Exercise 4

```
main.c
1 #include <stdio.h>
2 #define ADD 1
3 #define MIN 0
4 int main () {
5     int num1, num2;
6     printf("enter two integers: ");
7     scanf("%d %d", &num1, &num2);
8     #if ADD
9         printf("%d + %d = %d\n", num1, num2, num1+num2);
10    #endif
11    #if MIN
12        printf("%d - %d = %d\n", num1, num2, num1-num2);
13    #endif
14    return 0;
15 }
```

```
~/test$ ls
main main.c
~/test$ ./main
enter two integers: 2 3
2 + 3 = 5
~/test$ 
```

## Exercise 5

```
main.c x
1 #include <stdio.h>
2 #define HIT_NUM 7
3 #define _CRT_SECURE_NO_WARNINGS
4 int main()
5 {
6     if HIT_NUM == 5
7     {
8         puts("HIT_NUM is 5");
9     }
10    elif HIT_NUM == 6
11    {
12        puts("HIT_NUM is 6");
13    }
14    elif HIT_NUM == 7
15    {
16        puts("HIT_NUM is 7");
17    }
18    #else
19    {
20        puts("HIT_NUM is not 5, 6, and 7");
21    }
22    #endif
23    return 0;
24 }
```

Console Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
HIT_NUM is 7
>
```

## Exercise 6

```
main.c
1 #include <stdio.h>
2 #define MY_MAX(x,y) ((x)>(y) ? x : y)
3 #define MY_MIN(x,y) ((x)<(y) ? x : y)
4 int main () {
5     int num1, num2;
6     printf("enter two integers: ");
7     scanf("%d %d", &num1, &num2);
8     printf ("large : %d \n", MY_MAX(num1,num2));
9     printf("small : %d \n", MY_MIN(num1,num2));
10    return 0;
11 }
```

Console Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
enter two integers: 1 2
large : 2
small : 1
>
```

## Exercise 7

```
20216793_Kimjuneob.c
1 #include <stdio.h>
2 #define date __DATE__
3 #define time __TIME__
4 #define file __FILE__
5 int main ()
6 {
7     printf("%s\n", date);
8     printf("%s\n", time);
9     printf("%s\n", file);
10 }
```

Console Shell

```
~/test$ clang-7 -pthread -lm -o 20216793_Kimjuneob 20216793_Kimjuneob.c
~/test$ ./20216793_Kimjuneob
May  3 2021
13:51:24
20216793_Kimjuneob.c
~/test$
```

## Exercise 8

```
1 #include <stdio.h>
2 int main () {
3     int num1, num2;
4     scanf("%d %d", &num1, &num2);
5     printf("%d + %d = %d\n", num1, num2, num1+num2);
6     printf("%d - %d = %d\n", num1, num2, num1-num2);
7     printf("%d * %d = %d\n", num1, num2, num1*num2);
8     printf("%d / %d = %d\n", num1, num2, num1/num2);
9     printf("%d %% %d = %d\n", num1, num2, num1%num2);
10 }
```

Console Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
5 5
5 + 5 = 10
5 - 5 = 0
5 * 5 = 25
5 / 5 = 1
5 % 5 = 0
>
```

## Exercise 9

```
main.c x
1  #include <stdio.h>
2  int main () {
3      int lim, sum;
4      sum = 0;
5      scanf("%d", &lim);
6      for(int i=1; i<=lim; i++){
7          sum += i;
8      }
9      printf("%d\n", sum);
10 }
```

Console Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
```

## Exercise 10

```
main.c
1  #include <stdio.h>
2  int main () {
3      int loop;
4      scanf("%d", &loop);
5      for(int i=1; i<=loop; i++){
6          int n1, n2;
7          scanf("%d %d", &n1, &n2);
8          printf("Operation #d: %d + %d = %d\n", i, n1, n2, n1+n2);
9      }
10 }
```

Console Shell

```
> clang-7 -pthread -lm -o main main.c
> ./main
2
5 7
Operation #1: 5 + 7 = 127 5
Operation #2: 7 + 5 = 12
```