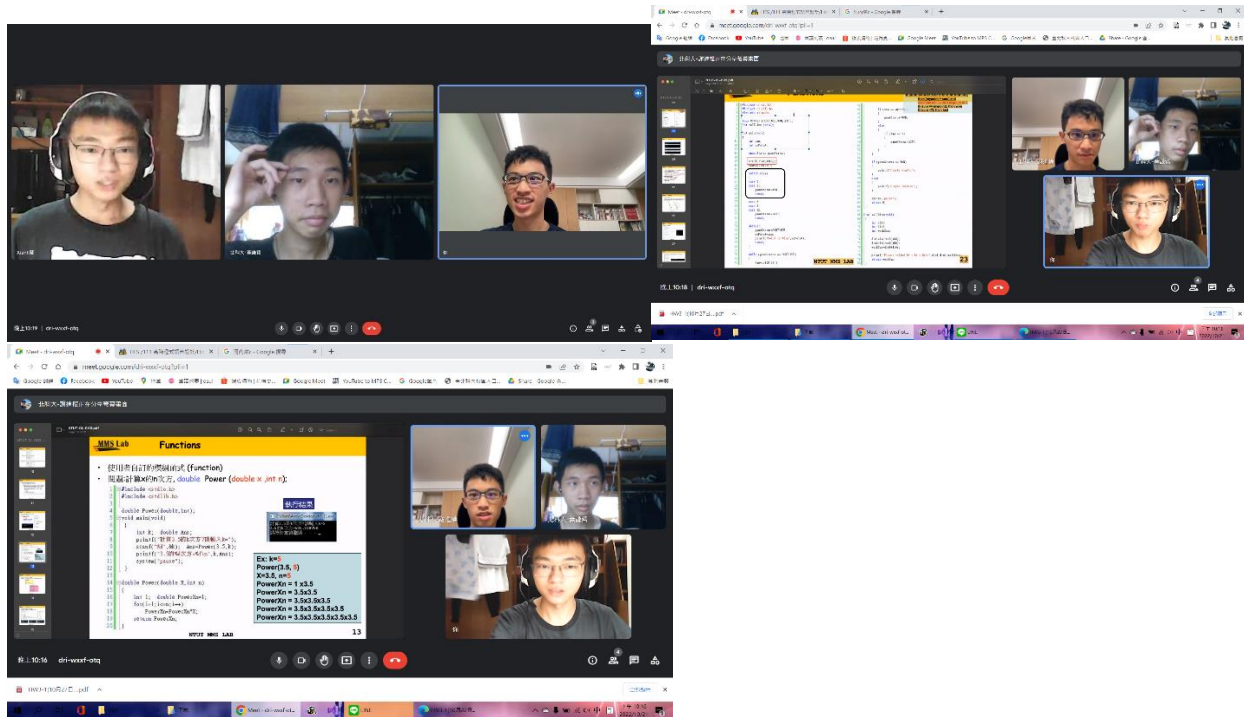


Discussion date: 10/21 9:33-10:19



P12

```
main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int square(int y);
5
6  int main ()
7  {
8      int x;
9
10     for (x = 1; x <= 10; x++)
11     {
12         printf("%d ", square(x));
13     }
14     printf("\n");
15     system ("pause");
16     return 0;
17 }
18
19 int square(int y)
20 {
21     return y*y;
22 }
23
```

P13

```
main.c ×
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  double power(double, int);
5
6  int main ()
7  {
8      int k;
9      double num;
10
11     printf("Calculate 3.5 the power of k\nk = ");
12     scanf("%d", &k);
13
14     num = power(3.5, k);
15     printf("3.5 the power of %d is :%f", k, num);
16     system ("pause");
17     return 0;
18 }
19
20 double power(double x, int n)
21 {
22     int i;
23     double powerxn = 1;
24
25     for (i = 1; i <= n; i++)
26         powerxn = powerxn * x;
27     return powerxn;
28 }
29
```

P15

```
main.c ×
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int maximum(int x, int y, int z);
5
6  int main ()
7  {
8      int num1, num2, num3;
9
10     printf("Enter 3 integers: ");
11     scanf("%d %d %d", &num1, &num2, &num3);
12
13     printf("Maximum is: %d\n", maximum(num1, num2, num3));
14     system ("pause");
15     return 0;
16 }
17
18 int maximum(int x, int y, int z)
19 {
20     int max = x;
21
22     if (y > max)
23         max = y;
24
25     if (z > max)
26         max = z;
27
28     return max;
29 }
30
```

P16

```
main.c ×
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <math.h>
4
5  int main ()
6  {
7      int x;
8
9      for (x = 1; x <= 10; x++)
10     {
11         printf("%.2f ", sqrt(x));
12     }
13     printf("\n");
14     system ("pause");
15     return 0;
16 }
17
```

P18

```
main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4
5  int main ()
6  {
7      char string1[60]="Hello!";
8      char string2[60];
9
10     int length;
11
12     strcpy(string2, string1);
13     printf("string2 now contains = %s\n", string2);
14
15     length = strlen(string2);
16     printf("The amount of letters within string2 is = %d\n", length);
17
18     system("pause");
19     return 0;
20 }
21
```

P20

```
*main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main ()
5  {
6      int i;
7      for (i = 1; i <= 20; i++)
8      {
9          printf("%5d", 1+(rand()%6));
10         if (i % 5 == 0)
11             printf("\n");
12     }
13     system("pause");
14     return 0;
15 }
16
```

P21

```
main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main ()
5  {
6      int i;
7      unsigned seed;
8
9      printf("Enter seed: ");
10     scanf("%u", &seed);
11
12     srand(seed);
13
14     for (i = 1; i <= 10; i++)
15     {
16         printf("%5d", 1+(rand()%6));
17         if (i % 5 == 0)
18             printf("\n");
19     }
20     system("pause");
21     return 0;
22 }
23
```

P23

```

main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <time.h>
4
5  enum Status {CONTINUE, WON, LOST};
6  int roll (void);
7
8  int main ()
9  {
10     int sum;
11     int point;
12
13     enum Status stat;
14
15     srand(time(NULL));
16     sum = roll();
17
18     switch (sum)
19     {
20         case 7:
21         case 11:
22             stat = WON;
23             break;
24
25         case 2:
26         case 3:
27         case 12:
28             stat = LOST;
29             break;
30
31         default:
32             stat = CONTINUE;
33             point=sum;
34             printf("Your point is %d\n", point);
35             break;
36     }
37
38     while (stat == CONTINUE)
39     {
40         sum = roll();
41
42         if (sum == point)
43             stat = WON;
44         else
45         {
46             if (sum == 7)
47                 stat = LOST;
48         }
49     }
50
51     if (stat == WON)
52     {
53         printf("You win!\n");
54     }
55     else
56     {
57         printf("You lose!\n");
58     }
59
60     system("pause");
61     return 0;
62 }
63
64 int roll (void)
65 {
66     int d1, d2, dsum;
67
68     d1 = 1+(rand()%6);
69     d2 = 1+(rand()%6);
70     dsum = d1 + d2;
71
72     printf("You rolled %d + %d = %d\n", d1, d2, dsum);
73     return dsum;
74 }
75

```

P27

```

main.c x
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  long factorial(long num);
5
6  int main ()
7  {
8      int i;
9      for (i = 1; i <= 10; i++)
10         printf("%2d! = %1d\n", i, factorial(i));
11     system("pause");
12     return 0;
13 }
14
15 long factorial (long num)
16 {
17     if (num <= 1)
18         return 1;
19     else
20         return (num * factorial(num-1));
21 }
22

```

Conclusion:

From doing this homework, I learnt a lot about functions. To create a function, you can add a data value with the format [dataValue functionName (dataValue)]. To use the function, you only need to add the function as a variable, Ex: functionName(dataValue) . There are also premade functions by adding an #include function, such as #include <math.h>, #include <string.h>, and #include <time.h>.

Code : <https://github.com/AldrichWijaya/Homework>