

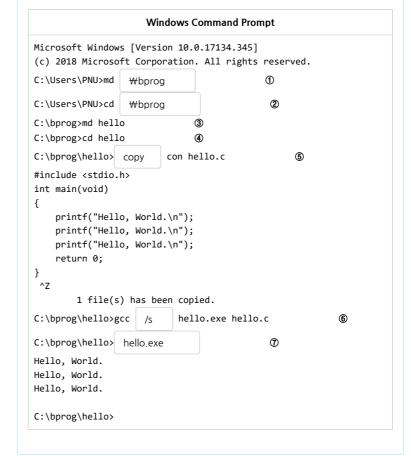
풀이 완료 총 3.00 점 In every C program source code that runs independently, the main () function must exist and be unique. Fill in the blank with a proper function name. Note that the identifiers are case sensitive in the C language.

문제 4

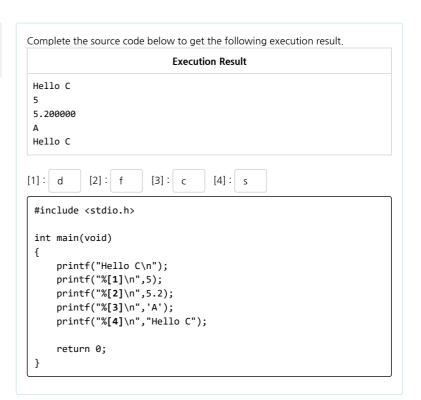
풀이 완료 총 8.00 점 We want to do the following tasks in the Microsoft Windows Command Prompt. Fill in the blanks with proper commands or options.

The initial working directory is "C:\Users\PNU" as shown in the command prompt of the figure below.

- 1. Create a directory named "bprog" at "c:₩".
- 2. Change the current working directory to "bprog" created at the step 1
- 3. Create a directory named "hello" at "c:₩bprog"
- 4. Change the current working directory to "hello" created at the step 3
- 5. Create a C source file named "hello.c"
- 6. Compile "hello.c" using "gcc" to build an executable file named "hello.exe"
- 7. Execute "hello.exe"



문제 **5** 풀이 완료 총 4.00 점



문제 **6** 풀이 완료 총 5.00 점

Complete the source code below to get the following execution result.

DO NOT include inessential white space characters in your answer.

```
Execution Result

Hello
"C"
Programming!

[1]: Hello₩n₩"C₩"₩nProgramming!

#include <stdio.h>

int main(void)
{
   printf("[1]");
   return 0;
}
```

문제 **7** 풀이 완료 총 4.00 점

We got the following (partial) execution result. Fill in the blank [1] in the source code properly to get the result.

Also Fill in the blanks [2] and [3] in the execution result by considering the given source code.

[1]: 3

```
Execution Result

Initially, Sum = 0.0000000
SUM: 256, AVG: 85.333336
[2] 0 , [3] 0.200000 , [4] 17
```

```
#include <stdio.h>
int main(void)
{
   int kor=85, eng=94, mat=77;
   int sum = 0;
   float avg;

   printf("Initially, Sum = %f\n",sum);
   sum = kor + eng + mat;
   avg = sum / [1];

   printf("SUM: %d, AVG: %f\n", sum, avg);
   printf("[2] %d, [3] %f, [4] %d\n",(eng-mat)/kor, (float)
   ((eng-mat)/kor), eng%mat);

   return 0;
}
```

문제 **8** 풀이 완료 총 4.00 점

Complete the source code below to get the following execution result.

DO NOT include inessential white spaces and parentheses in your code.

```
Execution Result

17
2
```

```
Execution Result

12
2
```

```
[1]: "%d",&a [2]: a%b

#include <stdio.h>
int main(void)
{
   int a, b=5;
   scanf([1]);
   printf("%d\n",[2]);
   return 0;
}
```

풀이 완료 총 6.00 점 What is the output of the following program? Fill in the blanks.

```
Execution Result

1 > 2 : 0

1 != 2 : 1

1 <3 <2: 0

1+2*3%3: 1

1<0||1<2&&2<3: 1

result = 3
```

```
#include <stdio.h>
int main(void)
{
    int a=1, b=2, c=3;
    int result;

    printf("1 > 2 : %d\n", a>b);
    printf("1 != 2 : %d\n", a!=b);
    printf("1 <3 <2: %d\n", a<c<b);
    printf("1+2*3%3: %d\n",a+b*c%3);
    printf("1<0||1<2&&2<3: %d\n",a<0||a<b&&c);

    result = a = b = c;
    printf("result = %d\n", result);

    return 0;
}</pre>
```

문제 10

풀이 완료

- · -총 5.00 점 Complete a function named is_odd() by filling in the blank in the source code below properly.

The function is_odd() has an integer argument k, and it returns 1 when k is an odd number, returns 0 otherwise.

An Execution Result Example

3
is an odd number.

풀이 완료 총 4.00 점 We want to get the same results from the 2 source codes below.

Complete the second source code appropriately.

DO NOT include inessential white spaces and parentheses in your code.

Source Code #1

```
#include <stdio.h>
int main(void)
{
    int a, b;
    scanf("%d%d", &a, &b);

    if( a!=1||b!=1 )
        printf("a or b != o
    ne\n");
    else
        printf("a and b ==
    one\n");
    return 0;
}
```

Source Code #2

```
#include <stdio.h>
int main(void)
{
   int a, b;
   scanf("%d%d", &a, &b);

   if( a==1&&b==1 )
        printf("a and b == one\n");
   if( a!=1||b!=1 )
        printf("a or b != o ne\n");
   return 0;
}
```

문제 12

풀이 완료 총 6.00 점 We want to get the same results from the 2 source codes below.

Complete the second source code appropriately by writing proper expressions for the blanks.

DO NOT include inessential white spaces and parentheses in your code.

Source Code #1

```
#include <stdio.h>
int main(void)
{
    int a, b, c;
    scanf("%d%d%d", &a, &b,
&c);
    if( a==1 ) {
        if( b==1 )
            printf("a and b
== one\n");
        if( c==1 )
            printf("a and c
== one\n");
    }
    return 0;
}
```

Source Code #2

```
#include <stdio.h>
int main(void)
{
   int a, b, c;
   scanf("%d%d%d", &a, &b,
&c);

   if( a==1&&b==1 )
        printf("a and b == one\n");
   if( a==1&&c==1 )
        printf("a and c == one\n");
   return 0;
}
```

풀이 완료 총 4.00 점 We want to get the same results from the 2 source codes below.

Complete the second source code appropriately by writing proper expressions for the blanks

DO NOT include inessential white spaces and parentheses in your code.

Source Code #1 Source Code #2 #include <stdio.h> int main(void) #include <stdio.h> int v; int main(void) scanf("%d", &v); int v; if(scanf("%d", &v); v%3==0&&v%5==0) printf("a multiple if(v%3==0&&v%5==0) of 3 and 5\n"); printf("a multiple of 3 and 5\n"); if(else if(v%3==0) v%3==0&&v%5!=0) printf("a multiple printf("a multiple of 3\n"); of 3\n"); else if(v%5==0) if(printf("a multiple of 5\n"); v%3!=0&&v%5==0) else printf("a multiple printf("other\n"); of 5\n"); if(v%3!=0&&v%5!=0 return 0; } printf("other\n"); return 0; }

문제 **14** 풀이 완료 총 4.00 점

For the source code below, what are the output values of nx and ny when it is executed and input constants are 2, 3, 1 and 2, 1, 3?

```
Execution Result-1

Enter three integers : 2 1 3

nx= 3 , ny= 3

Execution Result-2

Enter three integers : 2 3 1

nx= 1 , ny= 0
```

```
#include <stdio.h>
int main(void)
{
       int n1, n2, n3;
       int nx=0, ny=0;
        printf(" Enter three integers : ");
        scanf("%d %d %d", &n1, &n2, &n3);
       if (n1 < n2) {
               if (n1 < n3) nx = n1;
       else nx = n3;
        if (n1 < n2)
               if (n1 < n3) ny = n1;
        else ny = n3;
       printf("nx=%d, ny=%d\n", nx, ny);
        return 0;
}
```

풀이 완료 총 10.00 점 We want to get the same results from the 2 source codes below.

Complete the second source code appropriately by writing proper expressions for the blanks

DO NOT include inessential white spaces and parentheses in your code.

Source Code #1

```
#include <stdio.h>
int main(void)
   int y;
   scanf("%d",&y);
   if(y\%4==0)
        if(y%100==0)
           if(y%400==0)
               printf("l
eap year\n");
           else
               printf("n
ot leap year\n");
       else
           printf("leap
year\n");
       printf("not leap
year\n");
   return 0;
}
```

Source Code #2

```
#include <stdio.h>
int main(void)
{
    int y;
    scanf("%d",&y);
    if(

        y%4==0&&y%100!=0||y%400=0
)
        printf("leap year\n");
        else
            printf("not leap year
\n");
        return 0;
}
```

문제 **16** 풀이 완료 총 3.00 점

What is the output of the following program? Fill in the blanks.

```
Execution Result

1 3 5 7 9 4
```

```
#include <stdio.h>
int main(void)
{
   int i, s=0, cnt=0;

   for(i=1;i<8;i=i+2) {
       s = s + i*2;
       cnt = cnt + 1;
       printf("%d ", i);
   }
   printf("%d %d\n", i, cnt);
   return 0;
}</pre>
```

풀이 완료 총 3.00 점 We want to get the same execution results from the 2 source code below. Complete the Source Code #2 by filling in [1],[2] and [3] with proper codes. DO NOT include inessential white-spaces and parentheses in your code.

Ex) a = 15 (X) a=15(0) a=(b*c) (X) a=b*c (0)

```
• [1] a=15
• [2] a>0
```

• [3] a=a-(a%3+1)

Source Code #1

Source Code #2

```
#include <stdio.h>
int main(void) {
    int a;

    a=15;
    while( a>0 ) {
        printf("%d\n", a);
        a=a-(a%3+1) ;
    }
    return 0;
}
```

```
#include <stdio.h>
int main(void) {
   int a;
   for([1]; [2]; [3]) {
      printf("%d\n", a);
   }
   return 0;
}
```

문제 **18** 풀이 완료 총 5.00 점

We want to execute the statement "s=s+2*i-1" inside the "for" loop for **6** times. That is, # of execution of the statement "s=s+2*i-i" is 6. For each of the followings for the blank [1], determine whether it meets the above condition.

In addition, write the output of the program.

Execution Result

86

```
#include <stdio.h>
int main(void)
{
   int s,i;
   s=0;
   for( i=1; [1]; i=i+3 ) {
       s=s+2*i-1;
   }
   printf("%d\n",s);
   return 0;
}
```