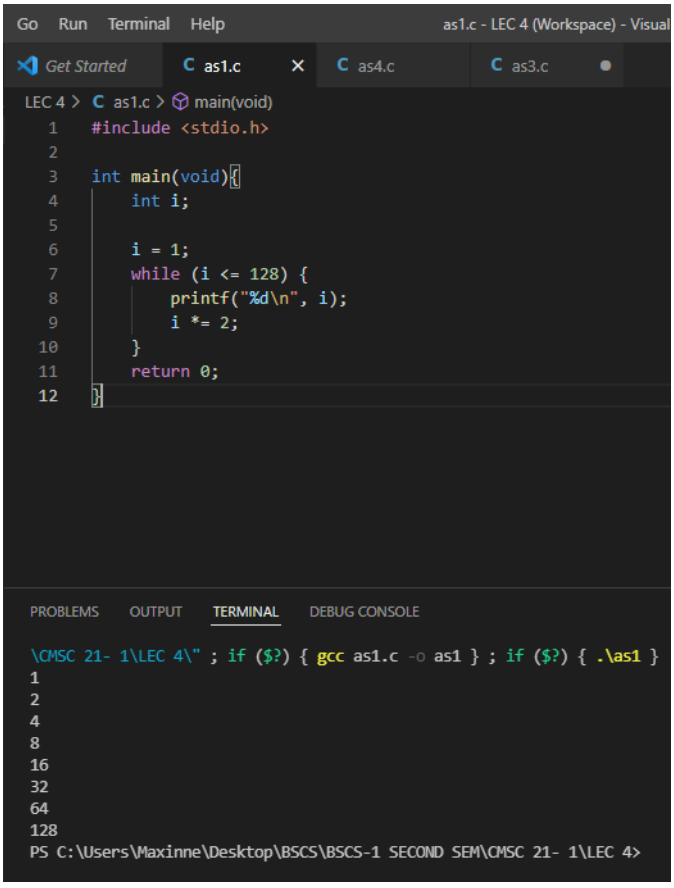
Loop/Repetition Statements
Lecture 4 Assignments

1.

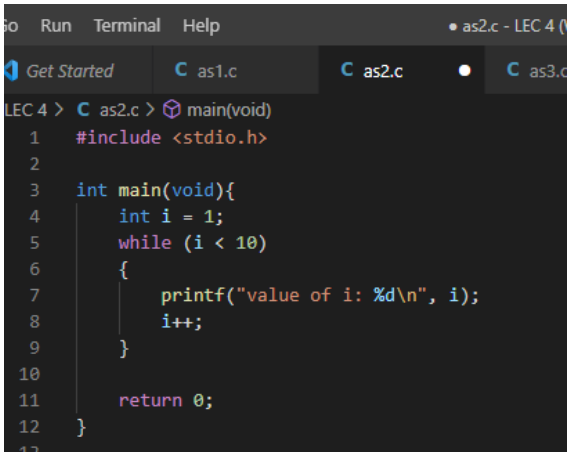


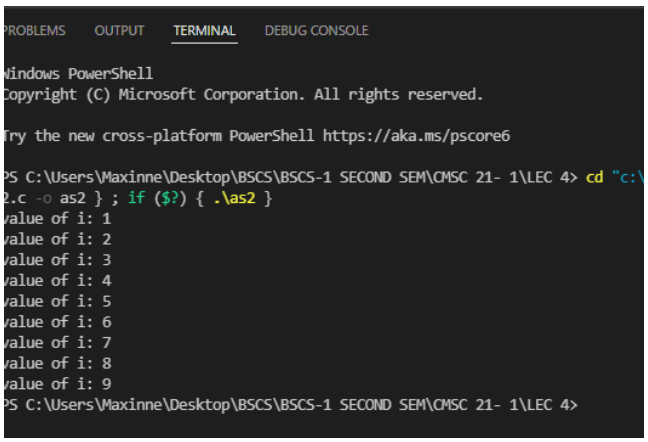
2.

Which one of the following statements is not equivalent to the other two (assuming that the loop bodies are the same)?

```
a) while (i < 10) {...}
b) for (; i < 10;) {...}
c) do {...} while (i < 10);
```

ANS: the for loop because it is an infinite loop.





```c
int main(void){
    int i = 1;
    do
    {
        printf("value of i: %d\n", i);
        i++;
    }while (i < 10);
    return 0;
}
```

```
Go  Run  Terminal  Help                                  as2.c - LEC 4 (Workspace) - Visual

PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Maxinne\Desktop\BSCS\BSCS-1 SECOND SEM\CMSC 21- 1\LEC 4> cd
2.c -o as2 } ; if ($?) { .\as2 }
value of i: 1
value of i: 2
value of i: 3
value of i: 4
value of i: 5
value of i: 6
value of i: 7
value of i: 8
value of i: 9
PS C:\Users\Maxinne\Desktop\BSCS\BSCS-1 SECOND SEM\CMSC 21- 1\LEC 4>
```

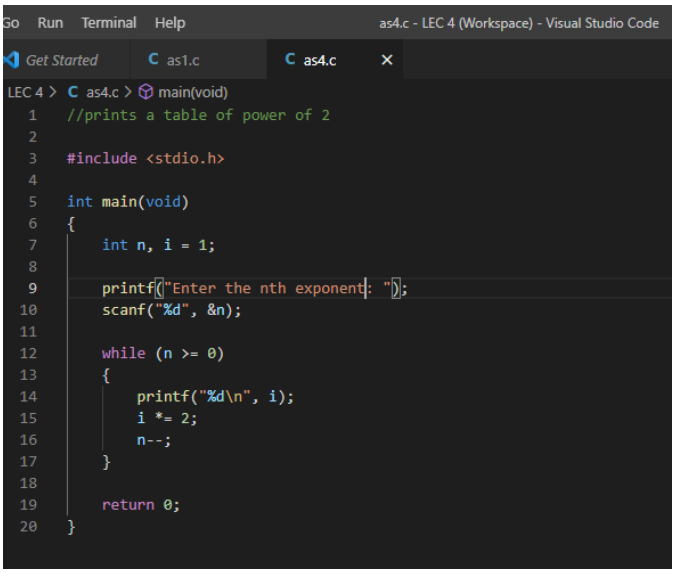
```c
int main(void){
    int i = 1;

    for (; 1 < 10;)
    {
        printf("value of i: %d\n", i);
    }
    return 0;
}
```

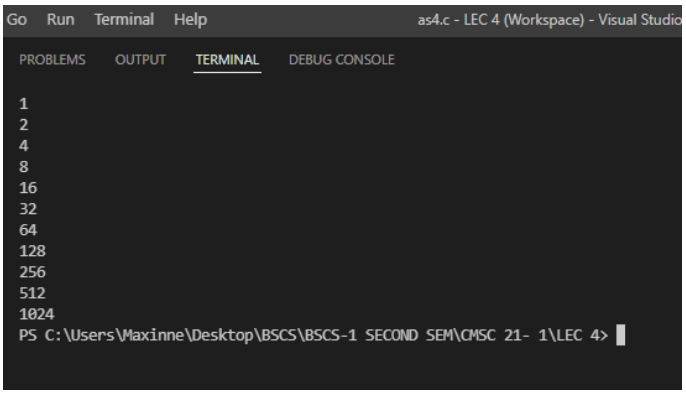
```
Go  Run  Terminal  Help

PROBLEMS  OUTPUT  TERMINAL  DE

value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
value of i: 1
```

3.

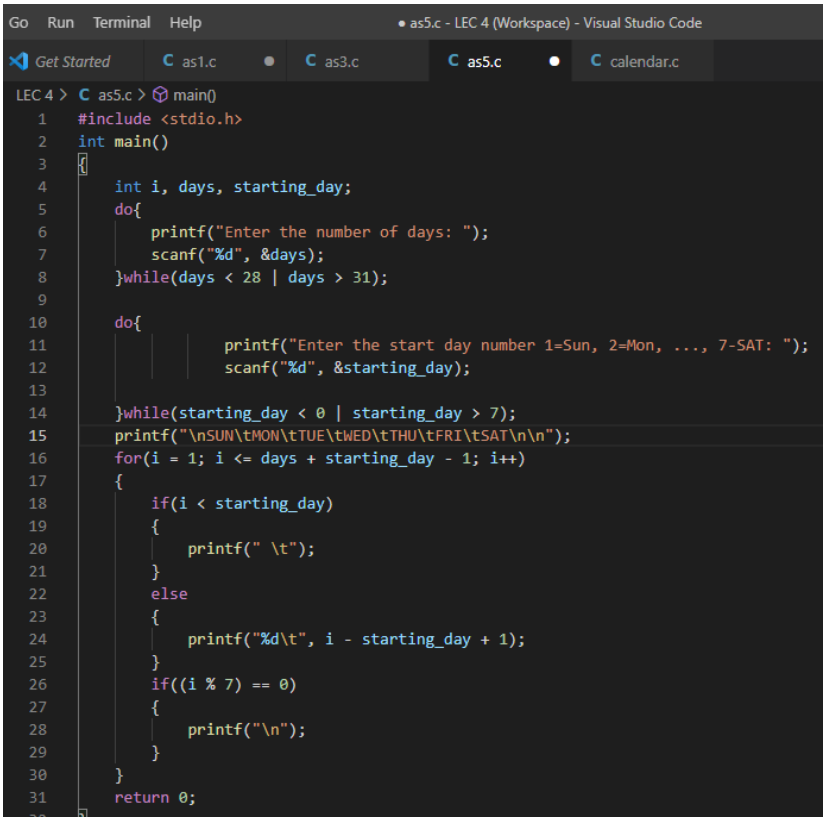

Go Run Terminal Help
as3.c - LEC 4 (Workspace) - Visual Studio C
Get Started
as1.c
as3.c
LEC 4 > as3.c > main(void)
#include <stdio.h>
int main(void){
int i;
for (i = 1; i < 128;)
{
printf("%d\n", i, i *= 2);
}
return 0;
}
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\Maxinne\Desktop\BSCS\BSCS-1 SECOND SEM\CMSC 21- 1\LEC 4> cd "c:\Us
3.c -o as3 } ; if ($?) { .\as3 }
2
4
8
16
32
64
128
PS C:\Users\Maxinne\Desktop\BSCS\BSCS-1 SECOND SEM\CMSC 21- 1\LEC 4>

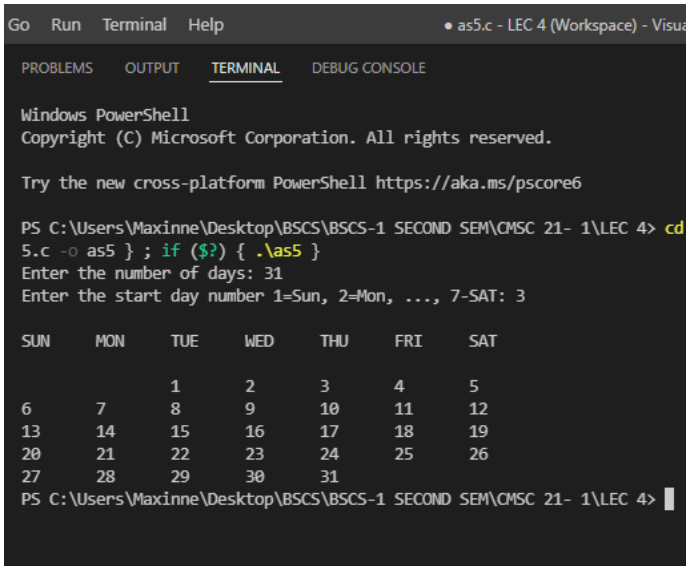
4.


Go Run Terminal Help
as4.c - LEC 4 (Workspace) - Visual Studio Code
Get Started
as1.c
as4.c
LEC 4 > as4.c > main(void)
//prints a table of power of 2
#include <stdio.h>
int main(void)
{
int n, i = 1;
printf("Enter the nth exponent: ");
scanf("%d", &n);
while (n >= 0)
{
printf("%d\n", i);
i *= 2;
n--;
}
return 0;
}


Go Run Terminal Help
as4.c - LEC 4 (Workspace) - Visual Studio
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
1
2
4
8
16
32
64
128
256
512
1024
PS C:\Users\Maxinne\Desktop\BSCS\BSCS-1 SECOND SEM\CMSC 21- 1\LEC 4>

5.





Github link: https://github.com/Maxinne02/Maxinne-Cahilig/tree/main/CMSC21/Lecture%204/Assignments