

CONTROL FLOW (CONTD.)

Problem Solving with Computers-I

<https://ucsb-cs16-wi17.github.io/>

C++

```
#include <iostream>
using namespace std;

int main(){
    cout<<"Hola Facebook\n";
    return 0;
}
```



Announcements

- Lab 01 should be done individually
- Please read the lab thoroughly before Wednesday section!
- Homeworks should be submitted in the provided template

Clickers out – frequency AB

Review: for loops

```
for( int x = 0; x < 50; x++ ) {  
    callFunctionOne();  
    callFunctionTwo();  
}
```

loop

variable
initialization

(done once)

update

(performed
AFTER
every iteration)

Body of the loop

When would you use
a for-loop instead
of a while loop?

Boolean expression:
execute the body of
the loop as long as
expression evaluates to
true.

Identify the code that is not equivalent to the other two?

Assume 'n' is an integer that has already been declared

Different for $n \leq 0$
otherwise same as #2 & 3

A.

```
for( int x = 0; x < n; x++ ) {  
    statementOne();  
    statementTwo();  
}
```

B.

```
int x = 0;  
while(x < n) {  
    statementOne();  
    statementTwo();  
    x++;  
}
```


update

C.

```
int x = 0;  
do{  
    statementOne();  
    statementTwo();  
    x++;  
} while(x < n);
```

D. They are ALL equivalent

Infinite loops

1.

```
for(int y=0;y<10;y--)  
    cout<<"Print forever\n";
```

2.

```
int y=0;  
for(;;y++)  
    cout<<"Print forever\n";
```

3.

```
int y=0;←  
for(;y<10;);  
    y++;
```

4.

```
int y=0;  
while(y<10)  
    cout<<"Print forever\n";
```

y was not updated in
the body of the while

5.

```
int y=0;  
while(y=2)  
    y++;
```

y == 2

y ~~0~~ 2

Fizzbuzz

Fizzbuzz(1)	1
Fizzbuzz(2)	2
Fizzbuzz(3)	fizz
Fizzbuzz(4)	4
Fizzbuzz(5)	buzz
Fizzbuzz(6)	fizz
Fizzbuzz(7)	7
Fizzbuzz(8)	8
Fizzbuzz(9)	fizz
Fizzbuzz(10)	buzz
Fizzbuzz(15)	fizzbuzz

Let's code Fizzbuzz!

Next time

- File IO
- Number and data representation