

Half-Way Mark



Code Challenge #1

Ask the user whether they want to find the price of another purchase. If the user says 'yes', repeat the process you just did. If the user says anything else, don't repeat.



PSEUDO CODE

```
//code from last class  
  
//print "Would you like to go again?"  
  
//get answer from input  
  
//if the answer is 'yes'  
    //code from last class
```



What if a register worker wanted to keep entering in amount of fruit *indefinitely* to get a price?

Then the code would have to repeat again and again and again....

While Loops

This method executes the code between the braces as long as the expression in the parenthesis is still.

```
while ( <expression> ) {  
    //code that gets repeated  
}
```

Checks the <expression> at the start of each loop

```
int x = 0;  
while (x < 10) {  
    System.out.println(x);  
    x = x + 1;  
}
```

>0

>1

>2

>3

>4

>5

>6

>7

>8

>9

DOESN'T PRINT 10

If it helps...

You can break the 'while loop' syntax down to this

```
int a = 1;
while (a < 10) {
    System.out.println(a);
    a = a + 2;
}
```

```
1  if (a < 10){
2      Print a
3      a = a + 2
4      Go back to line 1
    }
```

code

```
1 a = 1
2 while a < 10:
3     print (a)
4     a += 2
```

output

variables

Code Challenge #2

Create a loop for your fruit program that runs until the user doesn't say 'yes' when you ask 'would you like to calculate another purchase'?



PSEUDO CODE

```
//code from last class  
  
//print "Would you like to go again?"  
  
//get answer from input  
  
//while answer is "yes"  
    //code from last class  
    //print "Would you like to go again"  
    //get answer from input
```

Logical Operators

What if you wanted to have the system only stop when you say “no” and only keep going when you say “yes”. (Think invalid command, have to type in again)

Then two conditions would have to be considered.

&& is AND

|| is OR

You can test this on eclipse, just type for example
`System.out.println(true && true);`

```
true && true => true
true && false => false
false && true => false
false && false => false
```

AND is only true when **both** are true

```
true || true => true
true || false => true
false || true => true
false || false => false
```

OR is true when **either** are true

*****REMEMBER***** putting a ! in front of something reverses its value. `!true => false. !(false || false) => true`


```
System.out.println(true && false);  
  
System.out.println(true || false);  
  
System.out.println(5 > 1 && true);  
  
System.out.println(true || (true && false));  
  
System.out.println(!(2*3 + 1 == 6));
```

```
>false
```

```
>true
```

```
>true
```

```
>true
```

```
>true
```

Code Challenge #3 (BONUS)

Loop the question “Would you like to go again” if the user types something other than “yes” or “no” and only stop the outer loop if the user says “no”



PSEUDO CODE

```
//code from last class  
  
//print “Would you like to go again?”  
  
//get answer from input  
  
//while answer not “no”  
    //code from last class  
    //print “Would you like to go again”  
    //get answer from input  
    //while answer is not yes or no  
        //repeat question  
        //get answer from input
```