

1. `foo() || bar()` and `foo() && bar`

- a. `return foo() ? true: bar();`
- b. `return foo() ? bar():false;`

2. Here are the different versions:

- a. without Boolean (NOT Midtest)

```
line = read_line();
while(!all_blanks(line)){
    consume_line();
    line = read_line();
}
```

- b. with Boolean flag

```
boolean blank = false;
while(!blank){
    line = read_line();
    blank = all_blanks(line);
    if(!blank) consume_line();
}
```

These both will consume the same thing, the first one is better because it has a fewer number of conditions.

3. Garbage Collection

- a. Most languages that have garbage collection with the exception of a few functional languages are not really considered to be efficient. When memory efficiency matters this kind of function or method is available for use. For example in C the `free()` function frees up memory that the programmer doesn't think he/she needs. In a language with a garbage collector and a `delete` method it would be difficult for a programming team to determine if their objects were still around.
- b. "tenure" of object is a bad idea, because it would lead to large memory leaks in a program. Typically a garbage collector does not error on the side of deleting an object too soon.

4. How are arguments passed to subroutines in your pet language? If there is more than one option, how does the system determine which one to use?

In Coffeescript arguments are passed by value:

```
test = (a) -> a+3
```

```
a = 3
alert(a)
test(a)
alert(a)
```

The following code will print "3" twice. This means that arguments are passed by value. If they were passed by reference then a would have the value 6 stored in it after calling `test(a)`, resulting in the second alert printing 6.

5. Here is java code to determine which parameter is called first

```

class Order{

    public static void main(String[] Args){
        order(a(),b(),c(),d());
    }

    public static void order(boolean a,boolean b,boolean
c,boolean d){
        System.out.println("Done!");
    }

    public static boolean a(){
        System.out.println("A");
        return true;
    }

    public static boolean b(){
        System.out.println("B");
        return true;
    }

    public static boolean c(){
        System.out.println("C");
        return true;
    }

    public static boolean d(){
        System.out.println("D");
        return true;
    }
}

```

This code will return the following

```

A
B
C
D
Done!

```

So Java must evaluate expressions in the order which they are given as parameters.

Here is coffeescript code to determine how parameters are evaluated.

```
order = (a,b,c,d) -> alert "Done!"
```

```
a = alert "a"
```

```
b = alert "b"
```

```
c = alert "c"
```

```
d = alert "d"
```

This program alerted me in the following order..... a,b,c,d.