

Name SOLUTIONS

Email 6.818-www@mit.edu

Miniquiz #13

5 Minutes

Given the following MITScript program:

```
foo = fun(x) {  
    return x - 4;  
};  
y = foo(7);
```

Fill out the information that's present in the MITScript VM before the red instruction is executed:

IP	OP	LOCALS
7		
	7	

IP	OP	LOCALS
2	7	x : 7
	4	

GLOBALS
foo
y

HEAP

```
closure { foo:      , ctx: [] }
```

```
function {
    functions = [],
    constants = [None, 0, 7],
    names = [foo, y],
    instructions = [
        load_const 1
        load_func 0
        alloc_closure
        store_global 0
        load_global 0
        load_const 2
        call 1
        store_global 1
        pop
        load_const 0
        return
    ]
}
```

```
function {
    local_vars = [x],
    constants = [None, 4],
    instructions = [
        load_local 0
        load_const 1
        sub
        store_local 1
        load_local 0
        return
    ]
}
```