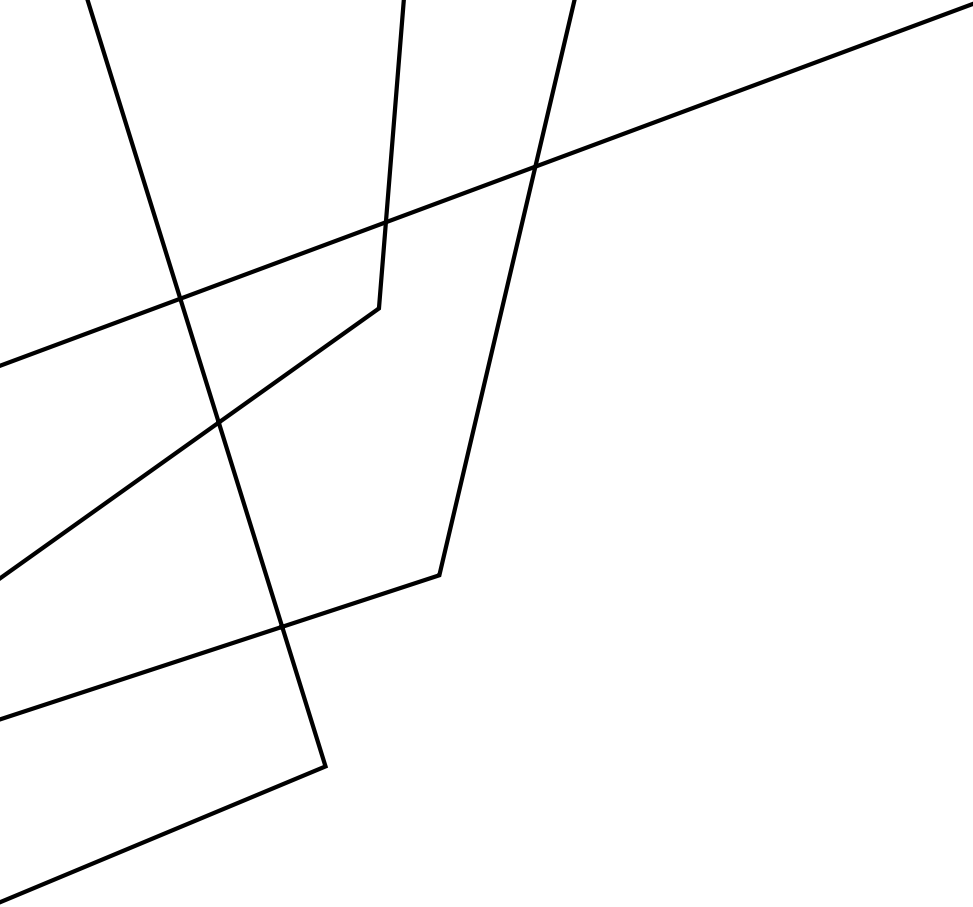# CHECK-IN #37: SSA REVIEW

Put the following program into SSA Form

```
        enter main
        [f] := 1 + [g]
        [t] := [f] EQ64 1
        ifz [t] goto LBL
        [f] := [g]
  LBL:  [f] := 1 + [g]
        leave main
```

Quiz 4 - Friday

Project Grades all uploaded!

ANNOUNCEMENTS
ADMINISTRIVIA

FLIPPED WEDNESDAY

DREW DAVIDSON

EECS 665

AGENDA

WRITTEN WORK

PROJECT 7 TALK

OPEN Q&A

QUESTION 1

Draw the x64 assembly for the following 3AC program:

```
fn_foo: enter foo
        [a] := 2
        [b] := 3
  L_1: [c] := [a] LT64 [b]
        ifz [c] goto L_2
        call bar
        goto L_1
  L_2: nop
  L_3: leave
```

QUESTION 2

Assume a function printString has been defined that prints a string. Show the x64 code corresponding to the the following snippet:

```
void v(){
        give "Hello world!";
}
```

QUESTION 3

Assume that there is a C compiler that uses the same allocation record scheme that we have presented in class.
Show what the stack might look like at entry to v:

```
int64_t v(int64_t c){
        int64_t a;
        int64_t b;
}
void main(){
        int64_t l;
        v(l + 2);
}
```

QUESTION 4

What is an ABI? What is the benefit of allowing two languages to have compatible ABIs?

P7 DISCUSSION