## MIT 6.035: Computer Language Engineering

Spring 2022

Mini Quiz 20

github.com/6035/sp22

Name:

Kerberos username (omit @mit.edu):

Consider the following code:

```
x = a + b;
y = x + 1;
z = x;
if (x > 0) {
    z = x + 1;
}
else {
    x = 2;
}
y = z + x;
```

Q: Draw the CFG for the above code.

Q: Perform a LIVENESS analysis on the above graph. What are the bitvectors IN and OUT that the analysis computes for each block? (Assume the code returns y and dumps all other variables)

Q: Does this analysis allow you to perform some optimizations?