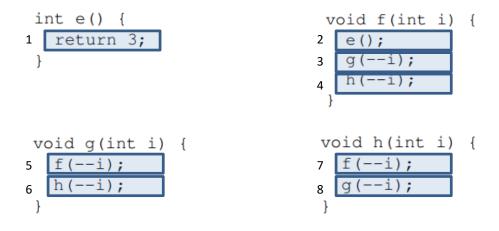# Class Exercise—CFI
ENEE 457
9/21/20

2. Consider the following functions, which we divide into blocks as in the picture below. Each block can be identified by the number to its left.

```
int e() {
1   return 3;
}
```

```
void f(int i) {
2   e();
3   g(--i);
4   h(--i);
}
```

```
void g(int i) {
5   f(--i);
6   h(--i);
}
```

```
void h(int i) {
7   f(--i);
8   g(--i);
}
```

Draw the corresponding Control Flow Graph (CFG) for these functions. Each node of the CFG will correspond to one of the blocks above. Number the nodes of the CFG according to the number assigned to the corresponding block.

Assume we would like to implement inline monitoring in order to enforce control flow integrity. Assume the possible labels are {A,B,C,D,E,F,G,H}. How should each node in the CFG be labeled in a "detailed" labeling of the graph?