

For each of the Bril codes below, 1) draw the CFG, 2) find the dominators for each vertex in the CFG, 3) draw the dominator tree.

Code 1

```
# ifelse.bril
@main {
  x: bool = const True;
  br x .then .else;
.then:
  y: int = const 2;
  jmp .join;
.else:
  y: int = const 3;
  z: int = const 4;
  jmp .join;
.join:
  one: int = const 1;
  w: int = add y one;
  print w;
}
```

Code 2

```
# while.bril
@main {
  i: int = const 0;
.head:
  five: int = const 5;
  t: bool = lt i five;
  br t .body .exit;
.body:
  one: int = const 1;
  i: int = add i one;
  jmp .head;
.exit:
  print i;
}
```

Code 3

```
# loopwithif.bril
@main {
  i: int = const 0;
  one: int = const 1;
.loop:
  three: int = const 3;
  t: bool = lt i three;
  br t .check .exit;
.check:
  u: bool = eq i one;
  br u .then .else;
.then:
  j: int = const 42;
  jmp .incr;
.else:
  j: int = const 99;
  jmp .incr;
.incr:
  i: int = add i one;
  jmp .loop;
.exit:
  print i;
}
```

Code 4

benchmarks/core/gcd.bril from the Bril github repository