

Install z3 using: `sudo apt install z3`

You can also download and use a stable release form <https://github.com/Z3Prover/z3/releases>

Download add.z3

run "z3 add.z3"

If everything is fine, you will get the following output:

unsat

(error "line 59 column 10: model is not available")

Now, your job is to rewrite this program by changing the types of variables of type (`_ BitVec 1`) to `Bool`. You are not allowed to add additional variables. `bvxor`, `bvand`, and `bvor` must be replaced with `xor`, `and`, and `or`. The objective of your modified program must be the same as the original program. The output must be `unsat`.

You can find an online z3 tutorial here:

<https://microsoft.github.io/z3guide/docs/theories/Bitvectors/>