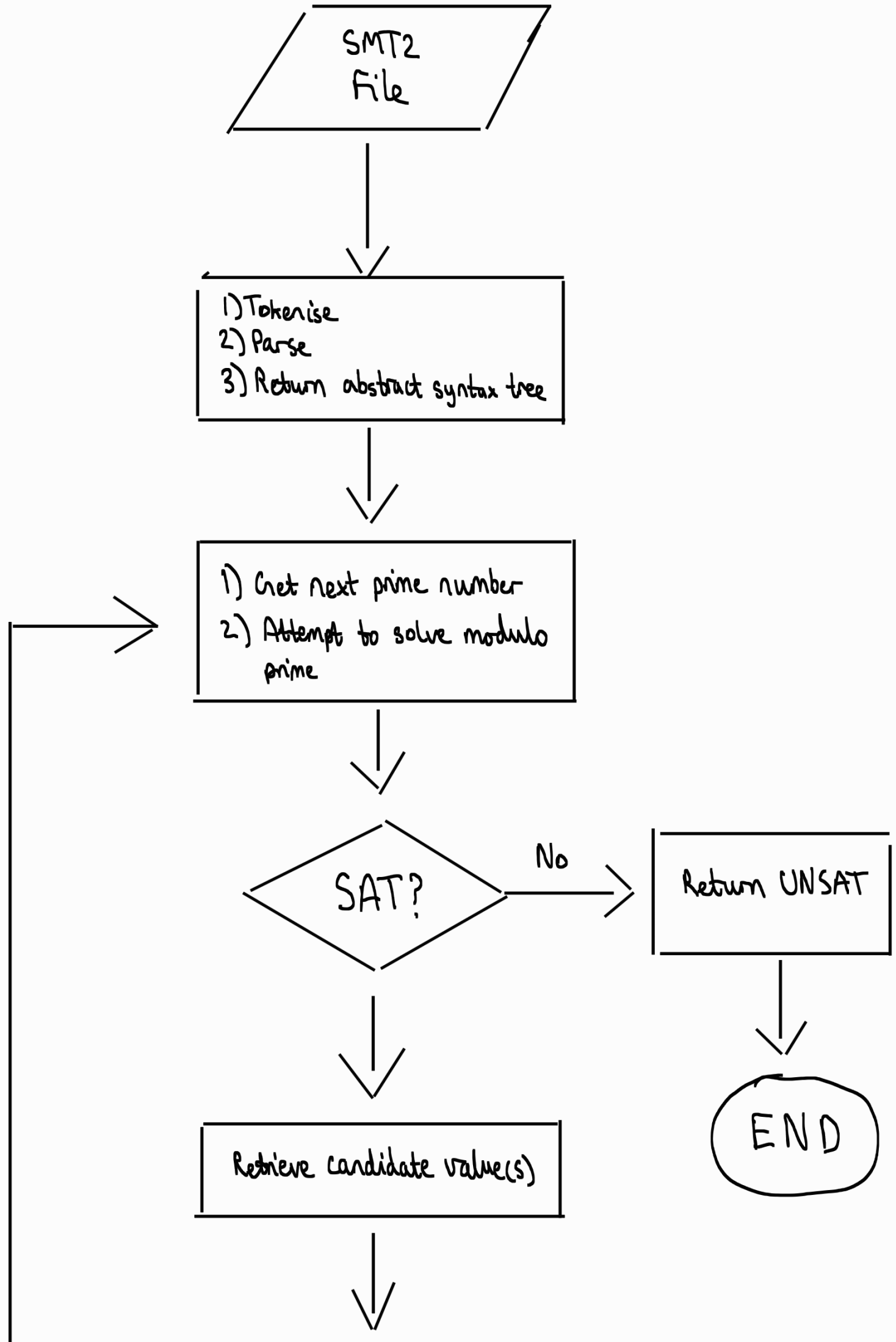
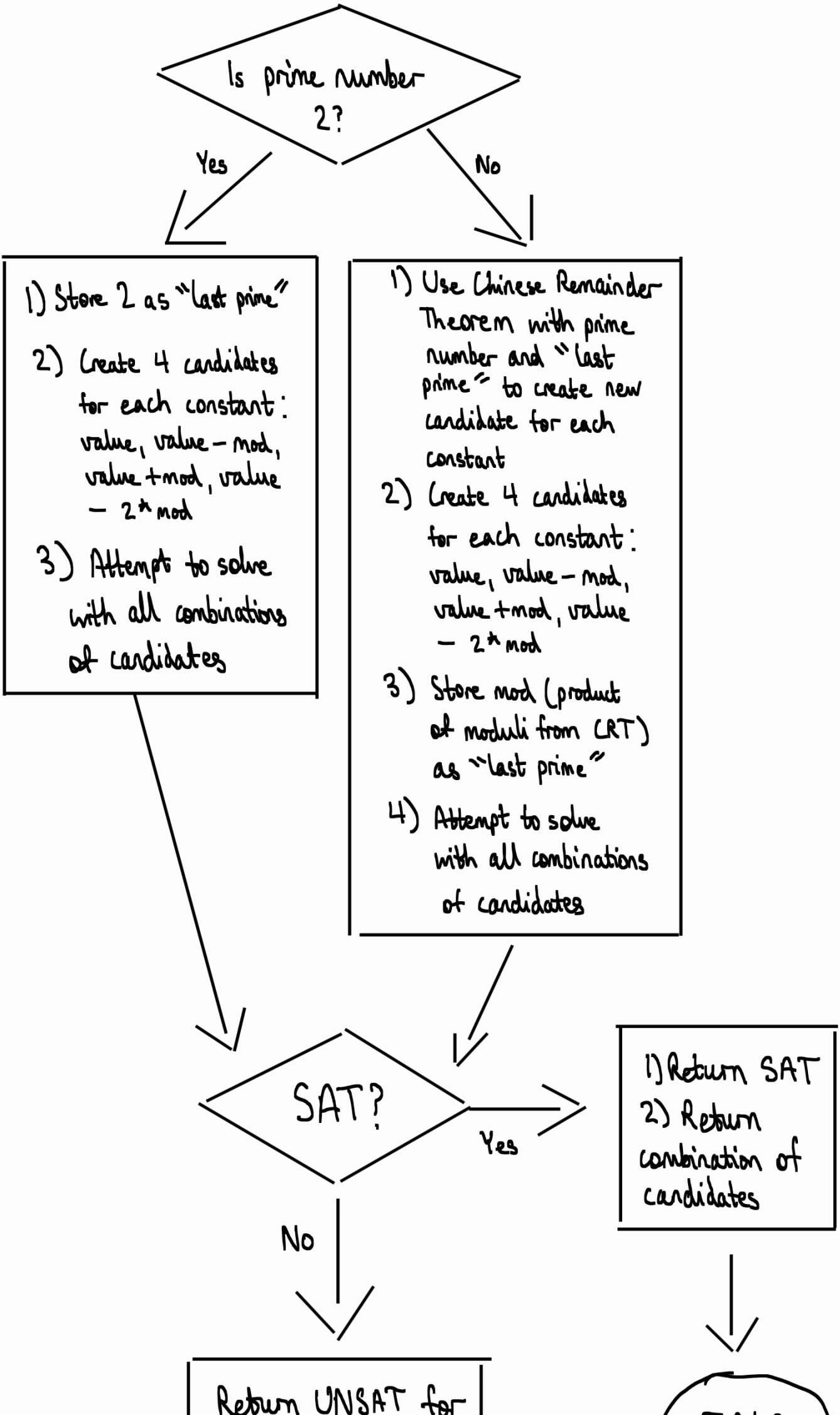

SMT2 File
1) Tokenise
2) Parse
3) Return abstract syntax tree
1) Get next prime number
2) Attempt to solve modulo prime
SAT?
No
Return UNSAT
END
Retrieve candidate value(s)


Is prime number 2?
Yes
No
1) Store 2 as "last prime"
2) Create 4 candidates for each constant: value, value - mod, value + mod, value - 2*mod
3) Attempt to solve with all combinations of candidates
1) Use Chinese Remainder Theorem with prime number and "last prime" to create new candidate for each constant
2) Create 4 candidates for each constant: value, value - mod, value + mod, value - 2*mod
3) Store mod (product of moduli from CRT) as "last prime"
4) Attempt to solve with all combinations of candidates
SAT?
Yes
No
1) Return SAT
2) Return combination of candidates
Return UNSAT for

candidate, NOT
the original problem

END