

**function** WALKSAT(*clauses*, *p*, *max\_flips*) **returns** a satisfying model or *failure*

**inputs:** *clauses*, a set of clauses in propositional logic

*p*, the probability of choosing to do a “random walk” move, typically around 0.5

*max\_flips*, number of value flips allowed before giving up

*model*  $\leftarrow$  a random assignment of *true/false* to the symbols in *clauses*

**for each** *i* = 1 **to** *max\_flips* **do**

**if** *model* satisfies *clauses* **then return** *model*

*clause*  $\leftarrow$  a randomly selected clause from *clauses* that is false in *model*

**if** RANDOM(0, 1)  $\leq$  *p* **then**

        flip the value in *model* of a randomly selected symbol from *clause*

**else** flip whichever symbol in *clause* maximizes the number of satisfied clauses

**return** *failure*