function HD-POP(*plan, operators, methods*) **returns** *plan*

inputs: *plan*, an abstract plan with start and goal steps (and possibly other steps)

loop do

if SOLUTION?(*plan*) **then return** *plan*

S_{need}, $c \leftarrow$ SELECT-SUB-GOAL(*plan*)

CHOOSE-OPERATOR(*plan, operators*, S_{need}, c)

$S_{nonprim} \leftarrow$ SELECT-NONPRIMITIVE(*plan*)

CHOOSE-DECOMPOSITION(*plan, methods*, $S_{nonprim}$)

RESOLVE-THREATS(*plan*)

end