function DEPTH-LIMITED-SEARCH(*problem*, ℓ) **returns** a node or *failure* or *cutoff*
  frontier ← a LIFO queue (stack) with NODE(*problem*.INITIAL) as an element
  result ← *failure*
  while not IS-EMPTY(*frontier*) **do**
    node ← POP(*frontier*)
    if *problem*.IS-GOAL(*node*.STATE) **then return** *node*
    if DEPTH(*node*) > ℓ **then**
      result ← *cutoff*
    else if not IS-CYCLE(*node*) **do**
      for each *child* **in** EXPAND(*problem*, *node*) **do**
        add *child* to *frontier*
  return *result*