Algorithm 2 : $expandLevel(nodes, gLim(), gSum()) \rightarrow solved$

```
open = n|n ϵ nodes ∧ expandableThisLevel(n)
while open ≠ {} do
  n ← Pop(n ϵ open)status(n) ←′ closed′
  for all neighbour in expand(n, dir(n)) do
    child ← (neighbour, dir(n), g + 1, open)
    if neighbour already exist in nodes then
      node = get(neighbour, nodes)
      if dir(child) == dir(node) then
        continue
      else
        return(True)
      end if
    end if
    if expandableThisLevel(child) then
      open+ = child
    end if
  end for
end while
return(False)
```