


```
;; PROBLEM 1 [1:45]
;;
;; Here are just the first two local function definitions from the maze solver
;; in the last lecture:
```

```
(define (solvable? m)
  ;; base case test: solved? is is pos lower right
  ;; reduction: down and right but within maze and no walls
  ;; argument: maze is finite, so moving only down or right
  ;;           must run into walls, edge of maze, or solved
  (local [(define (fn-for-pos p)
            (cond [(solved? p) true]
                  [else
                   (fn-for-lop (valid-next-positions p))]))

          (define (fn-for-lop lop)
            (cond [(empty? lop) false]
                  [else
                   (local [(define try (fn-for-pos (first lop)))]
                     (if (not (false? try))
                         try
                         (fn-for-lop (rest lop))))))]

          ...
    ]))
```

```
;; What is the most correct template tag for this code:
```

- ;; A. (@template encapsulated Pos (listof Pos))
- ;; B. (@template encapsulated Pos (listof Pos) try-catch)
- ;; C. (@template encapsulated genrec Pos (listof Pos) try-catch)
- ;; D. (@template encapsulated genrec arb-tree try-catch)
- ;; E. (@template encapsulated genrec arb-tree Pos try-catch)

60
seconds

```
(define (solvable? m)
  (local [(define (fn-for-pos p)
            (cond [(solved? p) true]
                  [else
                   (fn-for-lop (valid-next-positions p))]))
          (define (fn-for-lop lop)
            (cond [(empty? lop) false]
                  [else
                   (local [(define try (fn-for-pos (first lop)))]
                     (if (not (false? try))
                         try
                         (fn-for-lop (rest lop))))))]
          )))
```

Which is the correct assignment of template origins to colors?

A
arb-tree
genrec
try-catch

B
arb-tree
genrec
try-catch

C
arb-tree
genrec
try-catch

D
arb-tree
genrec
try-catch

E
arb-tree
genrec
try-catch