

```
1 #lang racket
2
3 (define (next-four-h n spacing i)
4   (define next-diag (+ n spacing 1))
5   (cond
6     [(< i 0) (cons 0 n)]
7     [else
8      (define next (next-four-h next-diag spacing (- i 1)))
9      (cons (+ next-diag (car next)) (cdr next))]))
10
11
12 (define (next-four n spacing)
13   (next-four-h n spacing 3))
14
15 (define (solve-h n spacing side-len)
16   (cond
17     [(= n (expt side-len 2)) 0]
18     [else
19      (define next (next-four n spacing))
20      (+ (car next)
21         (solve-h (cdr next) (+ 2 spacing) side-len))]))
22
23 (define (solve side-len)
24   (+ 1
25      (solve-h 1 1 side-len)))
26
27 (solve 1001)
```