

# Office Hours

Get-piece-or-none

(: get-piece-or-none : Loc  
Checkers → (V 'none Piece))

(define (get-piece-or-none loc game)  
 (local

{

(: pieces-from-list : (List Piece))

(define pieces-from-list

(filter (lambda ([p : Piece])

You have to define this → (loc=? (Piece-loc p)  
loc))

(Checkers-pieces game)))}

(if (= (length pieces-from-list) 0)  
      'none  
      (first pieces-from-list)))

We can use filter for this

Write which checks the location  
of a piece is same as the  
input location.

(= (length  
   (filter (lambda ([p : Piece])  
            (loc=? (Piece-loc p)  
                    loc)  
          (Checkers-pieces game)))) 0)

1.

b)

(: click-piece : Piece Checkers →  
Checkers)

(define (click-piece p game)

(local

d

(: removal : (Listof Piece)

(define removal (filter

(lambda ([pc : Piece]) (not

(Piece=? pc p))) (Checkers-pieces

game))) }

Helper  
functions

← New checkers

(Checkers removal (Checkers-turn game)

p) 1)

← set it to clicked-piece  
next

" $xy \rightarrow loc$ " — one word  
no space

# Click-Board

(match event  
["button up"] (match (Checkers-clicked-  
piece game-state)

[(Piece \_ \_) (place-piece ( $xy \rightarrow loc$   
 $xy$ )  
game-state)]

[none (match (get-piece-or-none  
( $xy \rightarrow loc$   $xy$ ) game-state)

[(Piece c loc) (click-piece  
(Piece c loc) game-state)]

$[[[ \text{'none game-state'} ]]]]$   
 $[- \text{game-state} ]]$

Don't modify this

HW (3d) (Extra Credit)

Idea:

$$\sqrt{X \times 10^{2m}} = \sqrt{X} \times 10^m$$

$$\sqrt{X} = \frac{\sqrt{X \times 10^{2m}}}{10^m} \leftarrow$$

If  $t = 0.1 \rightarrow$

$$\sqrt{2} = 1.414$$

$$\lfloor \sqrt{2000000} \rfloor = \lfloor \sqrt{2} \times \sqrt{1000000} \rfloor$$

$$= \lfloor \sqrt{2} \times 1000 \rfloor = \lfloor 1414.213 \rfloor$$

$$= \underline{1414}$$