

## Problem 1

### Part A

```
#(struct: a-program
  #(struct: if-exp
    #(struct: zero?-exp x)
    #(struct: const-exp 55)
    #(struct: diff-exp
      #(struct: const-exp 44)
      #(struct: var-exp x)
    )
  )
)
```

### Part B

```
let x 97 in -(32 , x)
```

## Problem 2

```
(define (create-point x y)
  (lambda (mode)
    (cond
      ((= mode 0) x)
      ((= mode 1) y)
      ((= mode 2)
       (lambda (new-x)
          ; Your code here ;
          ; Hint: You can use the set! function to change the value of a variable ;
          (set! x new-x)
        )
      )
      ((= mode 3)
       ; Your code here ;
       (lambda (new-y)
          (set! y new-y))
      )
    )
  )
)

(define (get-x point)
  (point 0)
)

(define (get-y point)
```

```

    (point 1)
  )

(define (set-x point new-x)
  ((point 2) new-x)
)

(define (set-y point new-y)
  ((point 3) new-y)
)

(define (square x)
  (* x x)
)

(define (get-distance point-1 point-2)
  ; Your code here ;
  (sqrt
    (+ (square (- (get-x point-2) (get-x point-1)))
      (square (- (get-y point-2) (get-y point-1))))))
)

```