

תרגיל בית 3 בשפות תכנות (93619) - חלק יבש

שאלה 1:
סעיף א:

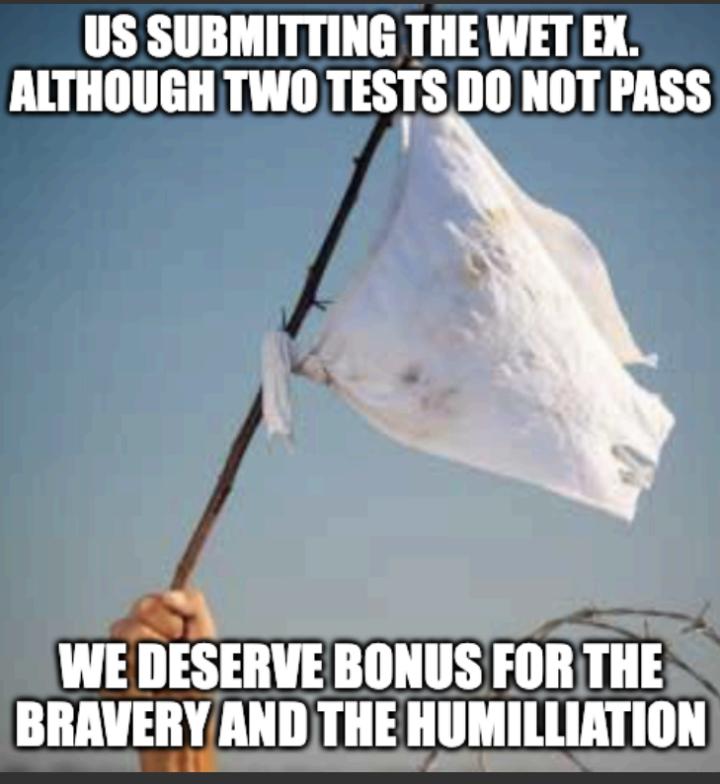
```
((EQ (CAR E) (QUOTE LET))
  (EVAL (CADDR E)
    (CONS (CONS (EVAL (CADR E) A)
      (EVAL (CADDR E) A)))
    A)))
```

סעיף ב:

```
(EVAL
  (CONS
    (CONS (QUOTE LAMBDA)
      (CONS (CONS (CADR E) NIL)
        (CONS (CADDR E) NIL)))
    (CONS (EVAL (CADDR E) A) NIL)) CONS
  A)
```

סעיף ג:

כ! היבטים שколоים.
השימוש בעזרת LET מעניק לנו דרך לבצע את החישוב באופן לקל מבל' לשנות את הסביבה A. כמו שבפונקציה אונימית LAMBDA ניתן להציג ערך מבל' להגדיר את הפונקציה בסביבה. בעצם, LET הינו סוכר סינטקטי עבור LAMBDA. ראו תיאור מדויק של אופן הפתרון בקישור הבא:
<https://stuckoverworked.com/Let-Lisp-Function-Lambda-Usage>



**THERAPIST: EVIL EVAL
DOESNT EXIST, HE CANT HURT YOU
EVIL EVAL:**

```
(LABEL EVAL (LAMBDA (E A)
  (COND ((ATOM E)
    (COND ((EQ E NIL) NIL)
      ((EQ E T) T)
      (T (CDR ((LABEL
        ASSOC
        (LAMBDA (E A)
          (COND ((NULL A) NIL)
            ((EQ E (CARR A)) (CRR A))
            (T (ASSOC E (CDR A)))))))
        A)))))

  ((ATOM (CAR E))
    (COND ((EQ (CAR E) (QUOTE QUOTE)) (CADDR E))
      ((EQ (CAR E) (QUOTE CAR))
        (CRR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CDR))
        (CDR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CADR))
        (CDDR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CADR)))
        (CDDR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CHAR))
        (CAR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CADRAR))
        (CADAR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CADDDR)))
        (CADDDR (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE ATOM)))
        (ATOM (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE NULL)))
        (NULL (EVRL (CDR E A))))
      ((EQ (CAR E) (QUOTE CONS)))
        (CONS (EVRL (CDR E A)) (EVRL (CADDR E A))))
      ((EQ (CAR E) (QUOTE EQ)))
        (EQ (EVRL (CDR E A)) (EVRL (CADDR E A))))
      ((EQ (CAR E) (QUOTE COND)))
        (COND ((EVCOND
          (LAMBDA (U A) (COND ((EVRL (CAAR U) A)
            (EVRL (CDAR U)
              A))
          (T (EVCOND (CDR U)
```



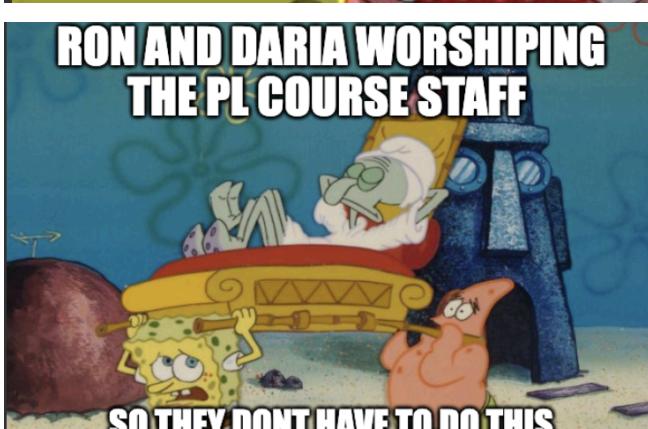
**RON AND DARIA WHEN THEY REMEMBER
HOW TO DEFINE A FUNCTION IN SML**



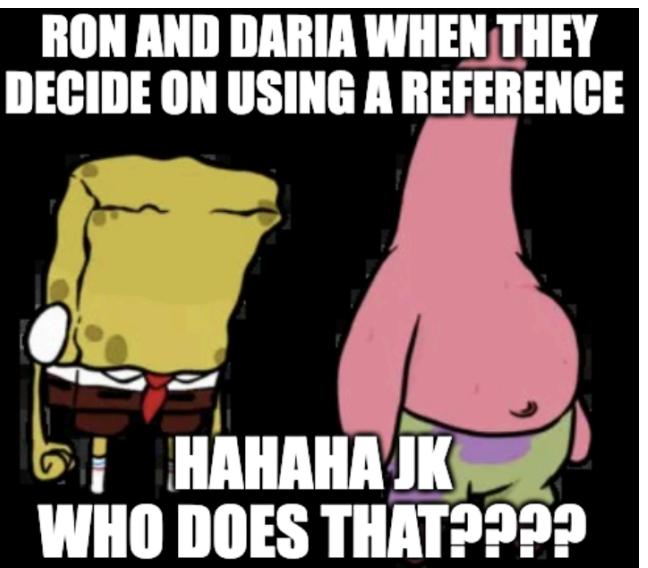
**RON AND DARIA WHEN THEY REALISE
THEY CANNOT JUST NOT DO THE HOMEWORK**



AND STILL HAVE IT DONE BY THE DUE DATE

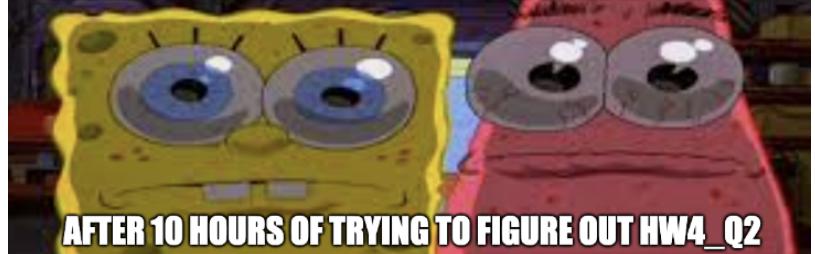


**SO THEY DONT HAVE TO DO THIS
(INSERT INTELLECTUAL SLUR) COURSE AGAIN**



**RON AND DARIA WHEN THEY
DECIDE ON USING A REFERENCE**

RON AND DARIA WATCHING MAROON CHILL IN THE HAVA



AFTER 10 HOURS OF TRYING TO FIGURE OUT HW4_Q2



**RON AND DARIA SINGING
FOR PENNIES AFTER FAILING PL**



OF THR CAR IS NIL



**RON AND DARIA
ועדת משמעת IN**



PLEASE DONT REPORT US

**AFTER
SUBMITTING THE MEME**