```
Exercise 2:
    Evaluate the following using lexical environment semantics with stores.
                               let x = ref +2 in (x := |x +2|; |x) + |x ;;
   Solution:
                                                      23, 23 + let x = ref 42 in (z:=!x-21;!x) + !x
                                                                                                                                                                                                                                                          return steps
multisteps
                                                               Riet
                                                                                                                                                                                                                                                                     R:nt
           Bref
                                                                                                                                                                                                                                                                     Bref
            Bref
    Riet
                                                                        Bseq
                                                                                         [ Extre3, El 17 423 + x 4 e, El 17 423
                                                                                                                                                                                                                                                                    Ryar
                    A assign
                                                                                         1 Extes, 2 CH423 1- ! x -21 4
                    Rassign
                                                                                                | {x | 23, { e | 423 | + ! x | y | e, { e | +23 | +23 | e | +23
                        B+
                                                                                                                                                                                                                                                                     Ryar
                         Renef
                                                                                                                                                                                                                                                                      Recef
                           Robert
                                                                                                 1 & x + e3, { e + +23 - 21 \ 21, { e + +23
                                                                                                                                                                                                                                                                      Rint
                        B+
                                                                                        V 21, 2 C → 213
                                                                                                                                                                                                                                                                      R+
                        B+
                                                                                                                                                                                                                                                                     Agssign
                  Rassign
                                                                                   1 Expe3, 80 1213 H! x 4
                 Bseg
                                                                                           18 2 He3, 8 CH213 H2 Ve, 8 c H213
                                                                                                                                                                                                                                                                     Rvar
                     R deref
                                                                                          U 21, El 1-213
                                                                                                                                                                                                                                                                       A deref
                  Pr deref
                                                                                                                                                                                                                                                                       Beg
                                                                                  W 21, El 1 213
                Rseq
                                                                          1 { x + e3, { e + 213 + ! 2 4 21, { e + 21}
                                                                                                                                                                                                                                                                     Ryar, Robert
             B+
                                                                         W 42, 20 → 213
                                                                                                                                                                                                                                                                      B+
             B+
                                                                   1 63, 20 → 213
                                                                                                                                                                                                                                                                    Ret
      Biet
                                            Riet
                                                                                                                                 R+
                                                                                                                                  A509
                                                                                                                                              Rassian
                                                                                        Rlet
                                                                                                                               (X:=!X
                                                                                                                                                      Ryar Rint
```