As discussed in class, rewrite the B-Trees from earlier in the semester in Scheme. Use only Scheme information found in the slides – **functions other than those defined in the slides are not allowed**. Recursion will be critical for this assignment.

Below please find a sample tree. Note that it is a different tree from the Java sample.

(define tree ' ( "R" 100 999

(

("R" 100 199

(

("L" 120 140 160 180)

)

)

("R" 200 299

(

("L" 220 240 260 280)

)

)

)  )  )

(define (search tree value)

)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rubric | Poor | OK | Good | Great |
| Comments | None/Excessive (0) | “What” not “Why”, few (5) | Some “what” comments or missing some (7) | Anything not obvious has reasoning (10) |
| Variable/Function naming | Single letters everywhere (0) | Lots of abbreviations (5) | Full words most of the time (8) | Full words, descriptive (10) |
| Structure | Indentation doesn’t match parenthesis (), no helper functions (0) |  |  | indentation correct, helper functions(10) |
| Recursion | Doesn’t exist (0) | Functions exist, not called (7) | Most recursion exists (14) | Recursion Completely Correct (20) |
| Searching | Doesn’t work at all (0) | Some searches work (10) | Minor search errors (30) | All searches perfect (50) |