

1. Exercise 2.22 on the text book.

2. Given the program

$$[y := x]^1; [x := x.cdr]^2; [y.cdr := x.cdr]^3; [x.cdr := y]^4;$$

Compute the result of the shape analysis $Shape_{\bullet}$ for all program points for the above program starting from the extremal value given in Figure 2.15 on page 115 of the text book.