

# Homework, Week 0, part C

September 12, 2014

Invoke clisp and type the following commands. Remember, a ‘:q’ (COLON QUE), ‘:a’ (COLON AIGH), CONTROL-BREAK, or CONTROL-C will restore the top level prompt if you make a mistake. This explores the Lisp functions, (minusp), (zerop), (plusp), (evenp), (oddp), (rem), (mod), (random), and (ash). Write down each result and see if you can’t figure out what each one does.

(minusp -1)	(rem 9 6)
(minusp 0)	(rem 9 7)
(minusp 1)	(rem 9 8)
(zerop -1)	(rem 9 9)
(zerop 0)	(rem 9 4)
(zerop 1)	
(plusp -1)	<i>;; run these several times</i>
(plusp 0)	(random 1)
(plusp 1)	(random 11)
	(random 101)
(evenp 4)	(random 1.0)
(evenp 5)	(random 11.0)
(oddp 6)	(random 101.0)
(oddp 7)	
	(ash 4 0)
<i>;; run with (rem) and (mod)</i>	(ash 4 1)
(rem 4 9)	(ash 4 2)
(rem 5 9)	(ash 4 3)
(rem 6 9)	(ash 4 4)
(rem 7 9)	
(rem 8 9)	(ash 28 0)
(rem 0 9)	(ash 28 -1)
	(ash 28 -2)
(rem 9 4)	(ash 28 -3)
(rem 9 5)	(ash 28 -4)