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## CMSC 331

## 1)

	EXP	CONS	LIST
Ex	(1)	(cons 1 null)	(list 1)
1.1	(12)	(cons 1 (cons 2 null))	(list 1 2)
1.2	(1(2))	(cons 1 (cons (cons 2 null) null))	(list 1 (list 2))
1.3	((1) 2)	(cons (cons 1 null) (cons 2 null))	(list (list 1) 2)
1.4	((12))	(cons (cons 1 (cons 2 null)) null)	(list (list 1 2))
1.5	((1)(2))	(cons(cons 1 null) (cons(cons 2 null) null))	(list (list 1) (list 2))
1.6	(((1))(2))	(cons(cons(cons 1 null) null) (cons(cons 2 null) null))	(list (list(list 1)) (list 2))
1.7	(((1)(2)))	(cons(cons(cons 1 null) (cons(cons 2 null) null)) null)	(list (list 1) (list 2)))
1.8	(1.2)	(cons 1 2)	Not possible
1.9	(12.3)	(cons 1 (cons 2 3))	Not possible

## 2)

	s	Expression to return x
2.1	(x 1 2)	(car s)
2.2	(1 x 2)	(car (cdr s))
2.3	((x) 1 2)	(car (car s))
2.4	(1(x)23)	(car (cdr s)))
2.5	((1)(x)23)	(car (cdr s)))
2.6	$((1 \times 2) 3)$	(car (cdr (car s)))
2.7	(1 x . 2)	(car (cdr s))
2.8	(1.x)	(cdr s)
2.9	(12.X)	(cdr (cdr s))
2.10	(1.(x))	(car (cdr s))

