

# Programming Assignment 2 (Expression Evaluation)

## Test Cases

### makeVariableLists (20 pts)

	Input Expression	Points
1	25	1
2	abc	1
3	xy[15]	1
4	P[q[10]]	2
5	m[n[X[5]]]	2
6	B+B	2
7	y+Y-z+R	2
8	(a-(b+c)*d)/2	3
9	b*(c/a)+z*a	3
10	(ab*3/defg)	3

### evaluate (60 pts)

```

p 2
x 3
y 4
z 8
C 5 (1,1) (2,2) (3,3) (4,4)
D 6 (1,1) (3,3) (4,4) (5,5)
ARRY 3 (1,1) (2,2)

```

	Input Expression	Value	Points
1	255	255	2
2	3+47	50	2
3	13-4-12	-3	2
4	150+14*15	360	2
5	x	3	2
6	p/y	0.5	2
7	p-x+y	3	2
8	p-x*z/p+y-4	-10	4
9	(p)	2	2
10	p-(x-y)	3	4
11	p-((x-y))	3	4
12	p-(x-y)*(2-z)+y	0	4
13	C[1]	1	2
14	C[x-2]	1	3
15	C[(z-y)]	4	4
16		7	4

	$C[3] + D[4]$		
17	$C[D[0]]$	0	4
18	$z * (y - D[p + \text{ARRY}[1] - C[1] + x])$	-8	6
19	$C[D[\text{ARRY}[2] * 2]] / 2$	2	5