ASSIGNMENT-1 TEST CASES

1. Method evaluate:

Test	Input	Argument x	Expected Output
1st Test	`mult(add(2,x),cos(x))`	`1`	1.6209069176044193
2nd Test	`add(sin(minus(mult(x,0.5),0)),1)`	3.14	1.9999996829318345
3rd Test	`exp(minus(mult(sin(mult(x,0.5)),11),x))`	3.14	2591.511336853614
4th Test	`minus(add(mult(x,x),x),2)`	6	40.0
5th Test	`minus(add(add(exp(add(mult(x,x),x)),mult(sin(x),sin(x))),mult(cos(x),cos(x))),0.5)`	0	1.5

2. Method `differentiate`:

Test	Input	Expected Output	Note
1st Test	`mult(sin(x),sin(x))`	`add(mult(mult(cos(x),1),sin(x)),mult(sin(x),mult(cos(x),1)))`	The expression provided as output by your program may be different from the answer given here but must evaluate to the same mathematical expression at the end
2nd Test	`add(mult(3,x),6)`	`add(add(mult(0,x),mult(3,1)),0)`	
3rd Test	`minus(exp(mult(x,x)),x)`	`minus(mult(exp(mult(x,x)),add(mult(1,x),mult(x,1))),1)`	
4th Test	`add(2,cos(add(mult(x,x),x)))`	`add(0,minus(0,mult(sin(add(mult(x,x),x)),add(add(mult(1,x),mult(x,1)),1))))`	
5th Test	`mult(x,mult(x,x))`	`add(mult(1,mult(x,x)),mult(x,add(mult(1,x),mult(x,1))))`	