Write a program that inserts the given integer values to a B-tree. The order of B-tree is 3. The number of values is not known in advance. Your program will print the values level by level. Assume that values are distinct.

Input:
1
2
3
4
5
6
7
8
9
-1

Your program should print the B-tree in the following way (First number represents the value, second number displays the parent node, L represents left child, M represents middle child and R represents right child).

4
2 (4 L) 6-8 (4 R)
1 (2 L) 3 (2 R) 5 (6-8 L) 7-9 (6-8 R)