Quiz 2

Using the following grammar:

E → id (L) | id | int

L → E "," L | E

Show a left-most derivation of:

sqrt(sum(diff(x,0), diff(y,0)))

including the intermediate sentential forms.

E → id (L)	sqrt(L)
L → E	sqrt(E)
E → id (L)	sqrt(sum(L))
L → E “,” L	sqrt(sum(E,L))
E → id (L)	sqrt(sum(diff(L),L))
L → E “,” L	sqrt(sum(diff(E,L),L))
E → id	sqrt(sum(diff(x,L),L))
L → E	sqrt(sum(diff(x,E),L))
E → int	sqrt(sum(diff(x,0),L))
L → id (L)	sqrt(sum(diff(x,0),diff(L)))
L → E “,” L	sqrt(sum(diff(x,0),diff(E,L)))
E → id	sqrt(sum(diff(x,0),diff(y,L)))
L → E	sqrt(sum(diff(x,0),diff(y,E)))
E → int	sqrt(sum(diff(x,0),diff(y,0)))