1. $x' = x + 1$

1	x + y' = (x + y)'	Q5
2	x + 0' = (x + 0)'	UI 1
3	x + 0 = x	Q4
4	x + 0' = x'	LL 2,3
5	x + 1 = x'	Def 4
6	x' = x'	Butt
7	x' = x + 1	LL 5,6

2. $x = y \rightarrow x + z = y + z$

1	x = y	ASS FOR CP
2	x + z = x + z	BUTT
3	x + z = y + z	LL 1,2
4	x = y→x + z = y + z	CP 1-3

3. $3 \cdot 3 = 9$

1	$x \cdot y' = (x \cdot y) + x$	P7
2	$3 \cdot 2' = (3 \cdot 2) + 3$	UI 1
3	$3 \cdot 2 = 6$	T24
4	$3 \cdot 2' = 6 + 3$	LL 3
5	$x + y' = (x + y)'$	Q5
6	$6 + 2' = (6 + 2)'$	UI 5
7	$6 + 1' = (6 + 1)'$	UI 5
8	$6 + 0' = (6 + 0)'$	UI 5
9	$x + 0 = x$	Q4
10	$6 + 0 = 6$	UI 9
11	$6 + 1 = (6 + 0)'$	Def 8
12	$6 + 2 = (6 + 1)'$	Def 7
13	$6 + 3 = (6 + 2)'$	Def 6
14	$3 \cdot 2' = (6 + 2)'$	LL4,13
15	$3 \cdot 2' = ((6 + 1)')'$	LL 14,12
16	$3 \cdot 2' = (((6 + 0)')')'$	LL 15, 11
17	$3 \cdot 2' = (((6)')')'$	LL 10, 16
18	$3 \cdot 2' = 6'''$	No Rule
19	$3 \cdot 3 = 9$	Def 18

Dr. Haderlie didn't cite a rule when he removed parentheses, so hopefully that's fine