(1) ∵ $A = A + AB$.

∴ $A + \bar{A}B$

$= A + AB + \bar{A}B$

$= A + (A + \bar{A})B$

$= A + B$.

(2) $(A+B)(B+C)(\bar{A}+C)$

~~$= (A+B)(A+B+C)(\bar{A}+B+C)(\bar{A}+C)$~~

$= (A+B)(\bar{A}+C)$

左边 $= (A+B)(\bar{A}B + \bar{A}C + BC + CC)$

$= (A+B)(\bar{A}B + C(\bar{A}+B+1))$

$= (A+B)(\bar{A}B + C)$. 看了.

$= AC + \bar{A}B + BC$.

右: $= 1 \cdot AC + \bar{A}B + BC$.

$= AC + \bar{A}B + BC$.

左右相同，成立.

~~4. 3~~ 2. $B\bar{C}\bar{D} + \bar{B}\bar{C}D + \bar{B}C\bar{D}$

3. $AC(1 + \bar{B}C + CD)$

$= A$

(2). $AB + CD(\bar{A}+B)$

$= AB$.

~~(3)~~

4.

(1). $A\bar{B}D + \bar{A}\bar{B}\bar{D} + \bar{A}C\bar{D}$

(2). $\bar{L} = CD + B\bar{C}\bar{D}$

$L = (\bar{C}+\bar{D}) \cdot (\bar{B}+C+D)$