ICT K-Mapping
Homework #2

Use K-Maps to write a simplified minterm boolean expression.

1) $\overline{A}\,\overline{B}C + AB\overline{C} + A\overline{B}C + \overline{A}B\overline{C} = Y$

2) $\overline{A}\,\overline{B}\,\overline{C} + \overline{A}BC + A\overline{B}\,\overline{C} = Y$

3) $\overline{A}B\overline{C} + A\overline{B}C + AB\overline{C} + \overline{A}BC = Y$

4) $\overline{A}B + AB + \overline{A}\,\overline{B} = Y$

For each of the given Truth Tables, write the original boolean expression and the simplified boolean expression. Remember to show all K-Map work below.

1.

A	B	C	Y
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

Original Expression:

_____

Simplified Expression:

_____

Show all K-Map Work Here!

2.

A	B	C	Y
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	0

Original Expression:

_____

Simplified Expression:

_____

Show all K-Map Work Here!