4. 마.

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | Y |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  C | 00 | 01 | 11 | 10 |
| 0 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AB  C | 00 | 01 | 11 | 10 |
| 0 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 |

Y=AB+ABC+A’B+AB’C=B+AC

A picture containing indoor, wall, tiled, tile

Description automatically generated

4. 바.

Y=(A’B)(CD+BC)+ACD’=A’BCD+A’BC+ACD’=A’BC(D+1)+ACD’=A’BC+ACD’

Diagram

Description automatically generated

4.사.

Y=(A’B)(CD+BC)+ACD’=(A’B)(CD+BC)+ACD’=A’BCD+A’BC+ACD’=A’BC(D+1)+ACD’=A’BC+ACD’=C(A’B+AD’)

Diagram

Description automatically generated