

Diseña un circuito lógico que produzca las siguientes salidas:

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

Primer paso: generar Tabla de Karnaugh

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

$$Y = \bar{C} + \bar{A}B + A\bar{B} = \bar{C} + A \oplus B$$

Verificación:

| A | B | C | $\bar{C}$ | $A \oplus B$ | $\bar{C} + A \oplus B$ | Y |
|---|---|---|-----------|--------------|------------------------|---|
| 0 | 0 | 0 | 1         | 0            | 1                      | 1 |
| 0 | 0 | 1 | 0         | 0            | 0                      | 0 |
| 0 | 1 | 0 | 1         | 1            | 1                      | 1 |
| 0 | 1 | 1 | 0         | 1            | 1                      | 1 |
| 1 | 0 | 0 | 1         | 1            | 1                      | 1 |
| 1 | 0 | 1 | 0         | 1            | 1                      | 1 |
| 1 | 1 | 0 | 1         | 0            | 1                      | 1 |
| 1 | 1 | 1 | 0         | 0            | 0                      | 0 |

Circuito Lógico:

