

**TABLE 6-2**

Full-adder truth table.

| $A$ | $B$ | $C_{in}$ | $C_{out}$ | $\Sigma$ |
|-----|-----|----------|-----------|----------|
| 0   | 0   | 0        | 0         | 0        |
| 0   | 0   | 1        | 0         | 1        |
| 0   | 1   | 0        | 0         | 1        |
| 0   | 1   | 1        | 1         | 0        |
| 1   | 0   | 0        | 0         | 1        |
| 1   | 0   | 1        | 1         | 0        |
| 1   | 1   | 0        | 1         | 0        |
| 1   | 1   | 1        | 1         | 1        |

$C_{in}$  = input carry, sometimes designated as  $CI$

$C_{out}$  = output carry, sometimes designated as  $CO$

$\Sigma$  = sum

$A$  and  $B$  = input variables (operands)