

$$(68)_{10} = (1000100)_2$$

### Step by step solution

**Step 1:** Divide  $(68)_{10}$  successively by 2 until the quotient is 0:

$$68/2 = 34, \text{ remainder is } 0$$

$$34/2 = 17, \text{ remainder is } 0$$

$$17/2 = 8, \text{ remainder is } 1$$

$$8/2 = 4, \text{ remainder is } 0$$

$$4/2 = 2, \text{ remainder is } 0$$

$$2/2 = 1, \text{ remainder is } 0$$

$$1/2 = 0, \text{ remainder is } 1$$

**Step 2:** Read from the bottom (MSB) to top (LSB) as 1000100.

So, 1000100 is the binary equivalent of decimal number 68 (Answer).

decimal      binary

66 = 1000010

$$(66)_{10} = (1000010)_2$$

### Step by step solution

**Step 1:** Divide  $(66)_{10}$  successively by 2 until the quotient is 0:

$$66/2 = 33, \text{ remainder is } 0$$

$$33/2 = 16, \text{ remainder is } 1$$

$$16/2 = 8, \text{ remainder is } 0$$

$$8/2 = 4, \text{ remainder is } 0$$

$$4/2 = 2, \text{ remainder is } 0$$

$$2/2 = 1, \text{ remainder is } 0$$

$$1/2 = 0, \text{ remainder is } 1$$

**Step 2:** Read from the bottom (MSB) to top (LSB) as 1000010.

So, 1000010 is the binary equivalent of decimal number 66 (Answer).

From: Binary To: Decimal

Enter binary number: 10000110

Convert Reset Swap

Decimal number: 134

Decimal from signed 2's complement: -122

From: Binary To: Decimal

Enter binary number: 10111110

Convert Reset Swap

Decimal number: 190

Decimal from signed 2's complement: -66

From: Binary To: Decimal

Enter binary number: 10111100

Convert Reset Swap

Decimal number: 188

Decimal from signed 2's complement: -68

<https://www.rapidtables.com/convert>