

- ① Rechne die Zahlen aus dem Dualsystem in das Dezimalsystem um. Nutze dazu die Stellenwerttafel.

a)  $101_2$

b)  $1010_2$

c)  $1000_2$

d)  $100_2$

e)  $111_2$

f)  $1011_2$

g)  $10101_2$

h)  $111001_2$

i)  $101011_2$

j)  $1100011_2$ 

|    | 64 | 32 | 16 | 8 | 4 | 2 | 1 | Zahl im Dezimalsystem |
|----|----|----|----|---|---|---|---|-----------------------|
| a) |    |    |    |   | 1 | 0 | 1 | $4 + 1 = 5$           |
| b) |    |    |    |   |   |   |   |                       |
| c) |    |    |    |   |   |   |   |                       |
| d) |    |    |    |   |   |   |   |                       |
| e) |    |    |    |   |   |   |   |                       |
| f) |    |    |    |   |   |   |   |                       |
| g) |    |    |    |   |   |   |   |                       |
| h) |    |    |    |   |   |   |   |                       |
| i) |    |    |    |   |   |   |   |                       |
| j) |    |    |    |   |   |   |   |                       |

- ② Wie das Dezimalsystem kann das Dualsystem für größere Zahlen beliebig erweitert werden. Große Zahlen haben dann mehr Stellen.

Wandle die Zahl  $1000110101_2$  ins Dezimalsystem um. Berechne dafür zuerst die Werte der einzelnen Stellen.

[illegible]

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- A full-page sheet of white graph paper with a light gray grid. The grid consists of small squares, approximately 10 units wide by 10 units high. There are no margins or additional markings on the page.

- [illegible]

A blank sheet of graph paper with a grid pattern. The grid consists of small squares formed by thin black lines. There are 20 columns and 15 rows of squares. The entire sheet is covered by this grid, with no margins or other markings.

The diagram illustrates the construction of binary numbers using a grid of boxes. Each box is divided into three sections: a left section for a digit (0 or 1), a middle section for the number, and a right section for a digit (0 or 1). The numbers shown are 10<sub>2</sub>, 110<sub>2</sub>, 1000<sub>2</sub>, 11<sub>2</sub>, 1100<sub>2</sub>, and 10011<sub>2</sub>. The boxes are arranged in two rows of three, with the numbers 10<sub>2</sub>, 110<sub>2</sub>, and 1000<sub>2</sub> in the top row, and 11<sub>2</sub>, 1100<sub>2</sub>, and 10011<sub>2</sub> in the bottom row. The boxes are labeled with the numbers 10<sub>2</sub>, 110<sub>2</sub>, 1000<sub>2</sub>, 11<sub>2</sub>, 1100<sub>2</sub>, and 10011<sub>2</sub> in the middle section.

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[illegible]