

# rechnung\_nichtinvertierender\_verstaerker

## Student Group

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|------------|---------|--------------|
|            |         |              |
|            |         |              |
|            |         |              |

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### \$I.\quad\$ Betrachtung der Ströme

[illegible]

## \$II.\quad\$ Betrachtung der Spannungsverstärkung

|                   |                                                                                         |  |
|-------------------|-----------------------------------------------------------------------------------------|--|
| aus (0)           | $\textcolor{blue}{A_V} = \frac{U_A}{U_E}$                                               |  |
|                   |                                                                                         |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $A_V = \frac{U_A}{\textcolor{blue}{U_E}}$                                               |  |
|                   | mit (4): $U_E = U_2 + U_D$                                                              |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $A_V = \frac{U_A}{\textcolor{blue}{U_2 + U_D}}$                                         |  |
|                   | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $A_V = \frac{U_A}{\textcolor{blue}{U_2} + U_D}$                                         |  |
|                   | mit (10): $U_2 = U_A \cdot \frac{R_2}{R_1 + R_2}$                                       |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $A_V = \frac{U_A}{\textcolor{blue}{U_A \cdot \frac{R_2}{R_1 + R_2}} + U_D}$             |  |
|                   | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad$      | $A_V = \frac{U_A}{U_A \cdot \frac{R_2}{R_1 + R_2} + U_D}$                               |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad\quad$ | $A_V = \frac{U_A}{U_A \cdot \frac{R_2}{R_1 + R_2} + \textcolor{blue}{U_D}}$             |  |
|                   | mit (1)                                                                                 |  |
| $\quad\quad\quad$ | $\quad\quad\quad$                                                                       |  |
| $\quad\quad$      | $A_V = \frac{U_A}{U_A \cdot \frac{R_2}{R_1 + R_2} + \textcolor{blue}{\frac{U_A}{A_D}}}$ |  |

[illegible]

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Last update: **2026/09/25 13:12**

