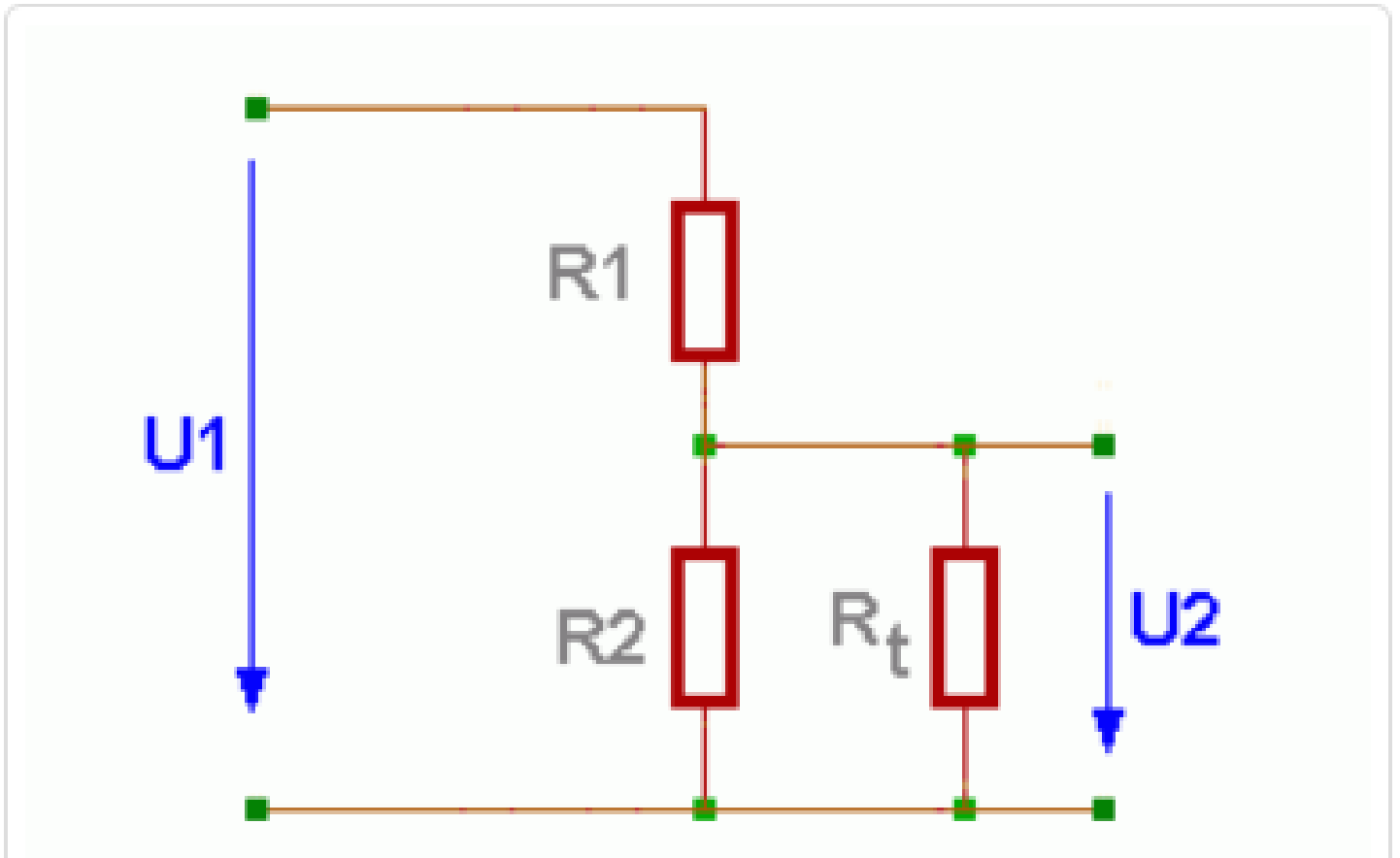# Loaded voltage divider

How to count it?

Value of resultant resistance: R1+(R2xRt)

Output voltage:

$$U_{ki} = U_{be} \cdot \frac{R_2 \times R_t}{R_1 + (R_2 \times R_t)}$$

When the voltage is measured, the connected voltage is lower than the real value due to the finite internal resistance of the instrument.