

Student 1 – name and surname	Student 2 – name and surname	Group	Date	Table no.
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### Worksheet laboratory 3

rev. 1

#### 1. Reading and measuring resistors

$R_1 =$                       tolerance =                      [%]                       $R_2 =$                       tolerance =                      [%]  
 $R_{1m} =$                        $R_{2m} =$                        $\varepsilon_1 =$                       [%]                       $\varepsilon_2 =$                       [%]

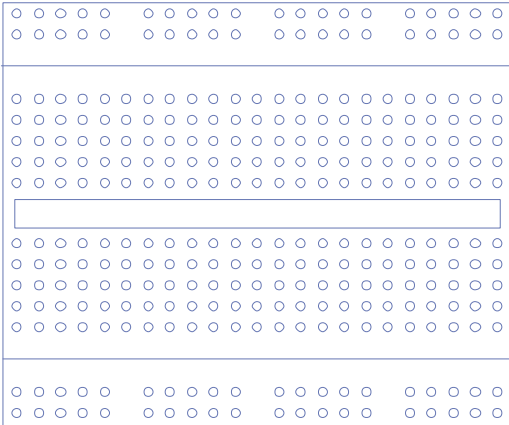
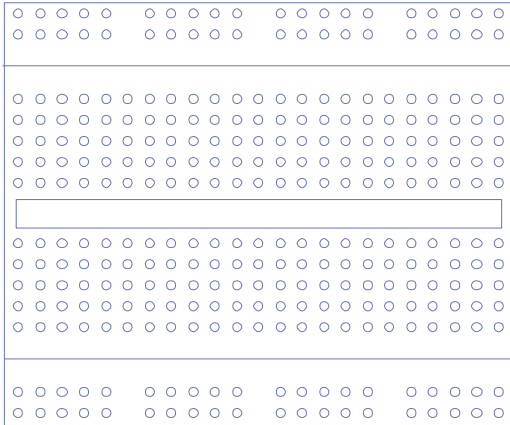
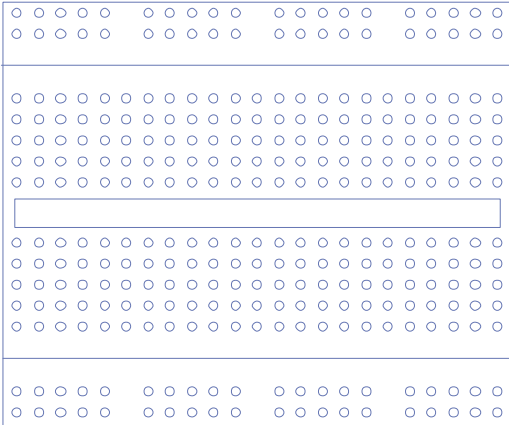
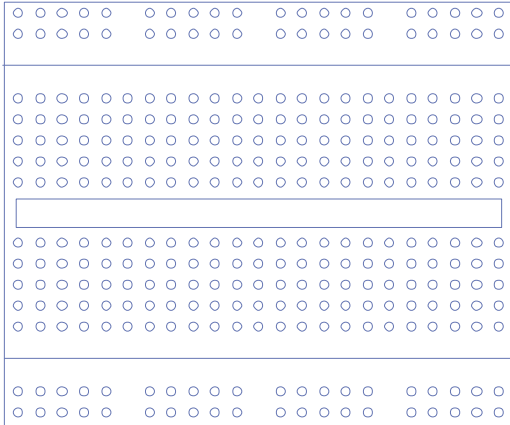
#### 2. Study of the connections on the breadboard

At which column number are the 2 long top and bottom horizontal rows interrupted?

Answer: .....

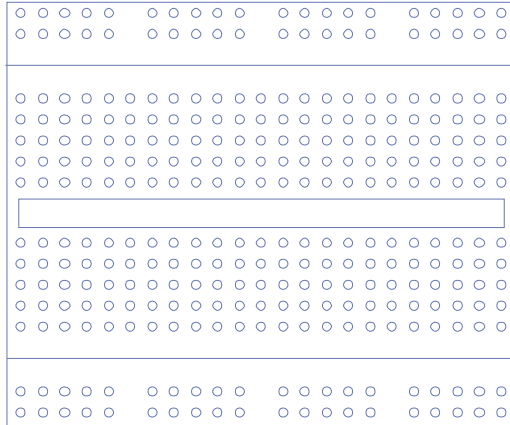
#### 3. Building given circuits on the breadboard

$R_1 =$                        $R_2 =$

 <p style="margin-top: 20px;">circuit 1 <math>R_{AB \text{ calc}} =</math>                      <math>R_{AB \text{ meas}} =</math></p>	 <p style="margin-top: 20px;">circuit 2 <math>R_{AB \text{ calc}} =</math>                      <math>R_{AB \text{ meas}} =</math></p>
 <p style="margin-top: 20px;">circuit 3 <math>R_{AB \text{ calc}} =</math>                      <math>R_{AB \text{ meas}} =</math></p>	 <p style="margin-top: 20px;">circuit 4 <math>R_{AB \text{ calc}} =</math>                      <math>R_{AB \text{ meas}} =</math></p>

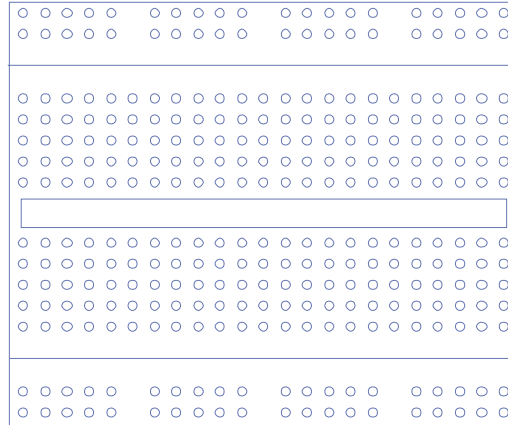
#### 4. Designing and building resistive circuits on the breadboard

schematic:



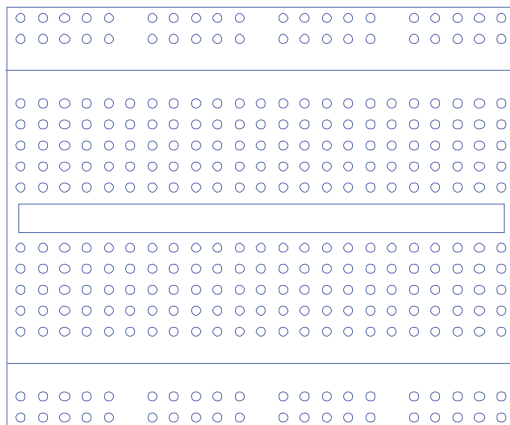
circuit 1  $R_{AB} =$   $R_{AB \text{ meas}} =$

schematic:



circuit 2  $R_{AB} =$   $R_{AB \text{ meas}} =$

schematic:



circuit 3  $R_{AB} =$   $R_{AB \text{ meas}} =$

## 5. Building and measuring resistive dividers

**a)**  $R_1 =$   $R_2 =$   $C_y =$   $C_x =$   $U_A =$   $U_B =$   
 $R_2/(R_1+R_2) =$   $U_B/U_A =$

**b)**  $U_A =$   $U_2 =$   
 $R_2 / (R_1 + R_2 + R_3) =$   $U_2 / U_A =$

## 6. Measurement of the input resistance of the oscilloscope

$R_1 =$                        $C_y =$                        $U_A =$                        $U_B =$                        $R_i =$