X1. The angle of rotation of a lactose solution measured in a polarimeter is +27,45°. The length of the polarimeter's tube is 200,9 mm, the accuracy of angle measurement is 0,05° (that is ± 0,025°). Calculate the concentration of lactose! (Also give the error of the measurement!)

X2. A voltage divider contains two resistors: R_1 = 2 kΩ és R_2 = 20 kΩ. Calculate the output voltage on R_1 if the input voltage is 230 V!

X3. The limiting angle of view of a student is 0,4'. Calculate her visual acuity!

X4. Calculate the distance from the Landolt-ring with a gap of 1mm, when the image of the gap on the "retina" of the reduced eye has a size of 5 µm !