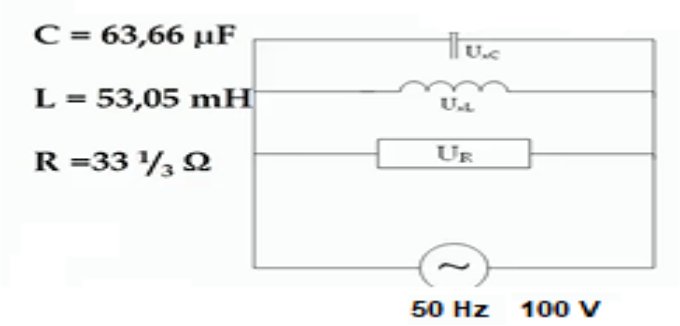
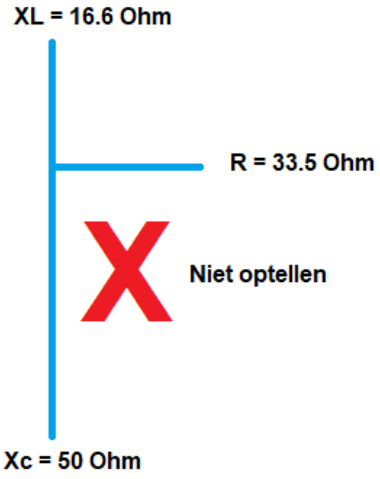
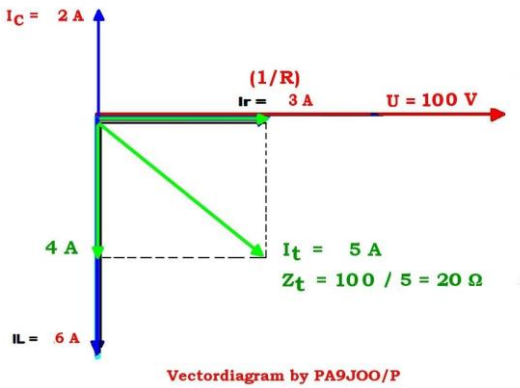
LCR -parallel



Xc = 1/ 2πfC = 1/ 2 x 3.14 x 50 x 63.66exp-6 = 50 Ohm
XL = 2πfL = 2 x 3.14 x 50 x 53.05exp3 = 16.66 Ohm
R = 33.5 Ohm



Ir = U / R = 100 / 33.5 = 3 A
IL = U / XL = 100 / 16.6 = 6 A
IC = U / XC = 100 / 50 = 2 A



It = √ Ir^2 + (IL-IC)$_2$ =
It = √ 4^2 +3^2 =
It = 5 A

Z = U / It
Z = 100 / 5 = 20 Ohm