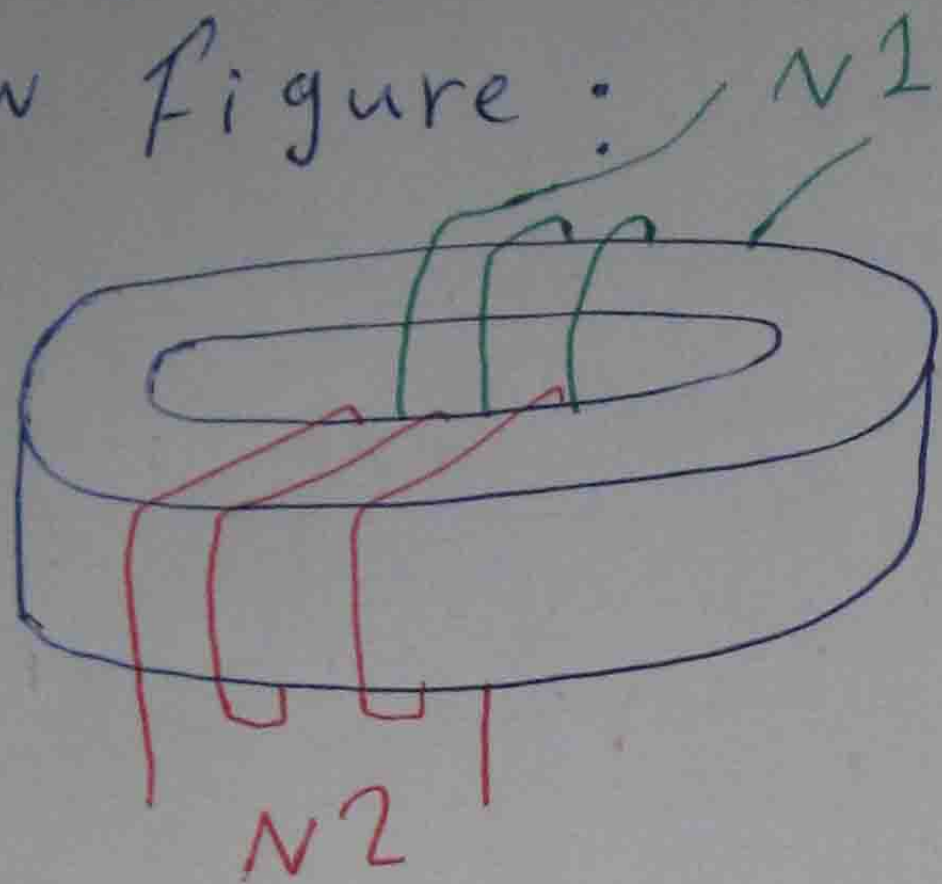


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So, the Inductance of Primary,  
Approximately is  $\approx 1.6 \mu H$

For example: we have a Core such as  
below figure:



$N_1' = 1 \text{ turn}$   
 $L_1' = 0.5 \mu H$   
with LCR meter

$$\Rightarrow \left( \frac{N_1}{N_2} \right)^2 = \frac{L_1}{L_2} \Rightarrow \left( \frac{N_1'}{N_1} \right)^2 = \frac{L_1'}{L_1}$$

$$\Rightarrow N_1 \approx 1.78 \text{ turn} \approx 2 \text{ turn}$$

and its diameter (of its wire) given with  
this formula:  $d = 1.38 \sqrt{\frac{I}{j}}$

and how can I find  $N_2$ ?  $j \rightarrow$  density of current

$$\frac{N_1}{N_2} = \frac{V_1}{V_2} \text{ or } \frac{N_1}{N_2} = \frac{I_2}{I_1}$$

$$\Rightarrow \frac{2}{N_2} = \frac{50}{450} \Rightarrow N_2 \approx 18 \text{ turn}$$

its calculation is like to calculation  
of the Inductors.