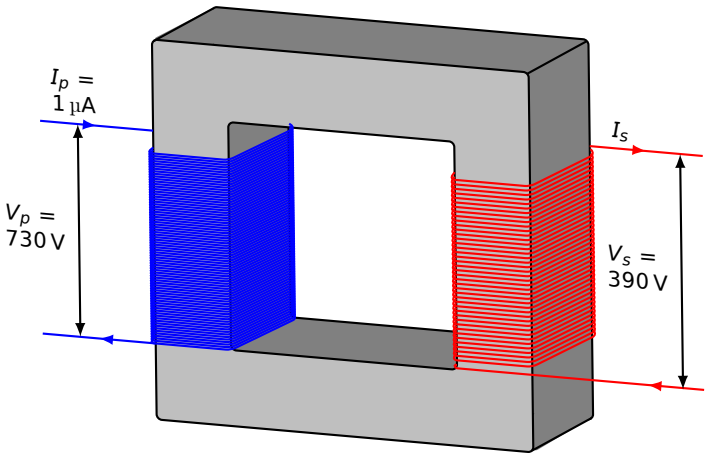
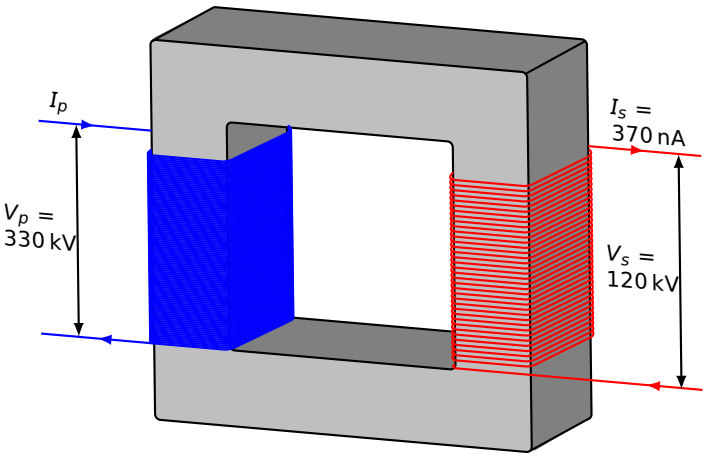
Calculate the current through the primary, I_p or secondary coil I_s. The number of turns *drawn* on the diagram aren't accurate and assume the transformer is 100% efficient;

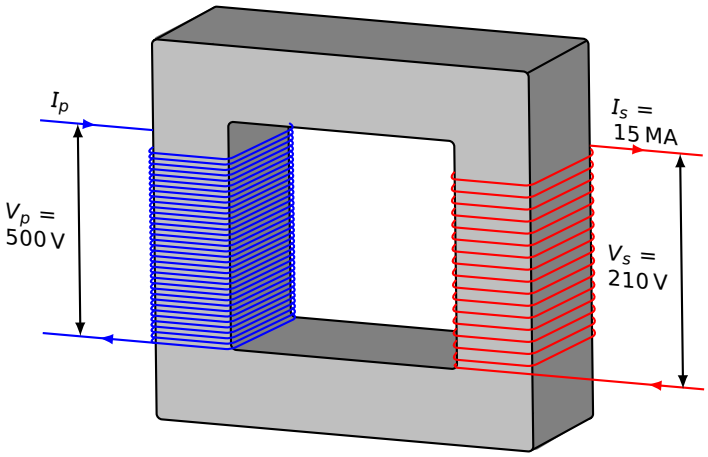
1)



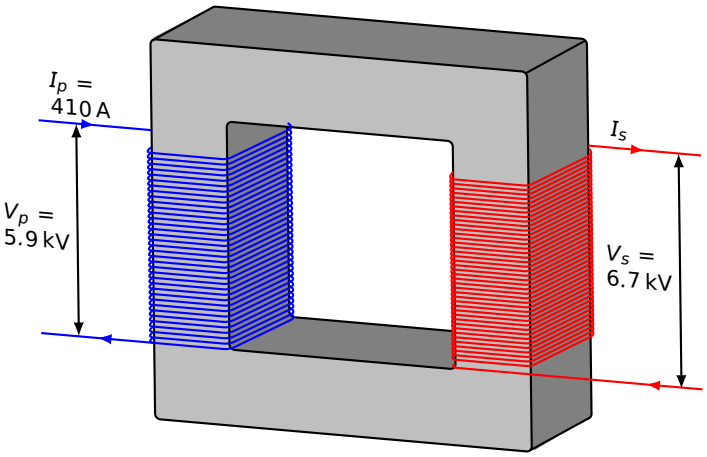
2)



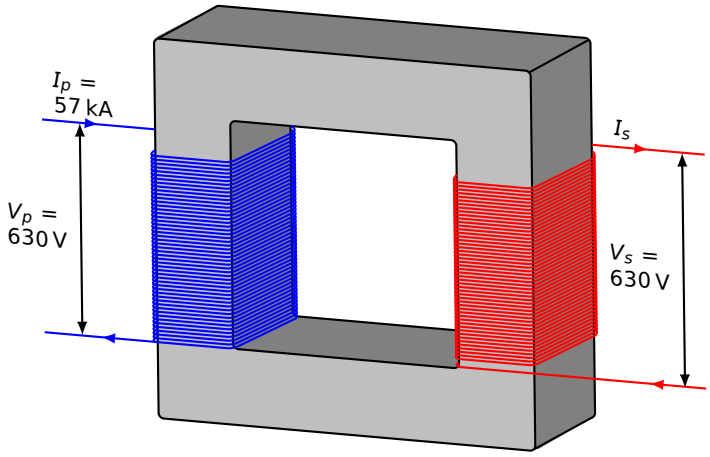
3)



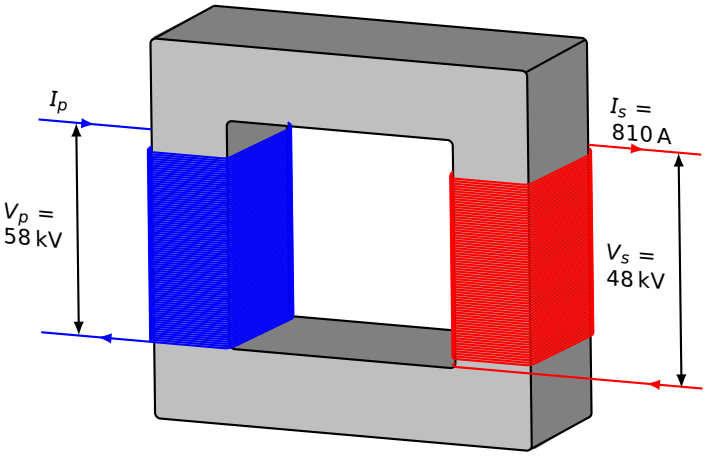
4)



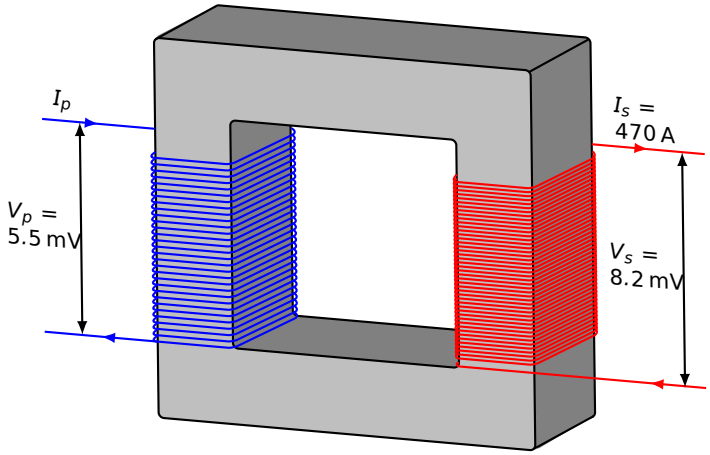
5)


I_p = 57 kA
I_s
V_p = 630 V
V_s = 630 V

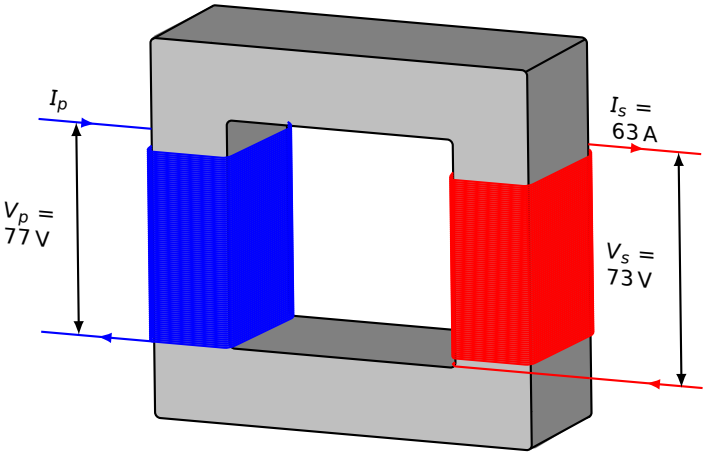
6)


I_p
I_s = 810 A
V_p = 58 kV
V_s = 48 kV

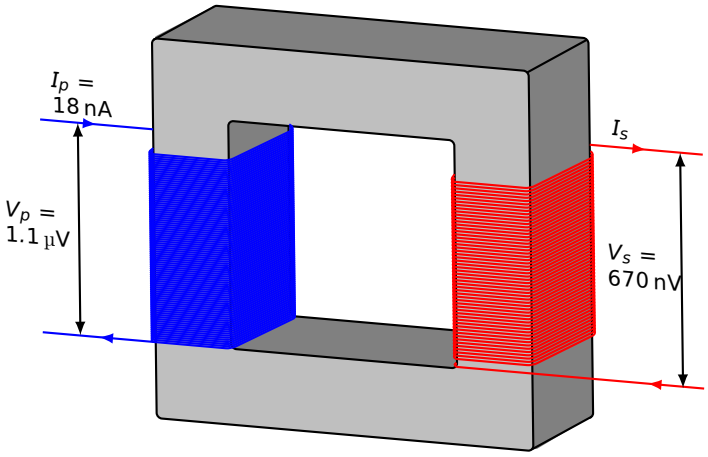
7)


I_p
I_s = 470 A
V_p = 5.5 mV
V_s = 8.2 mV

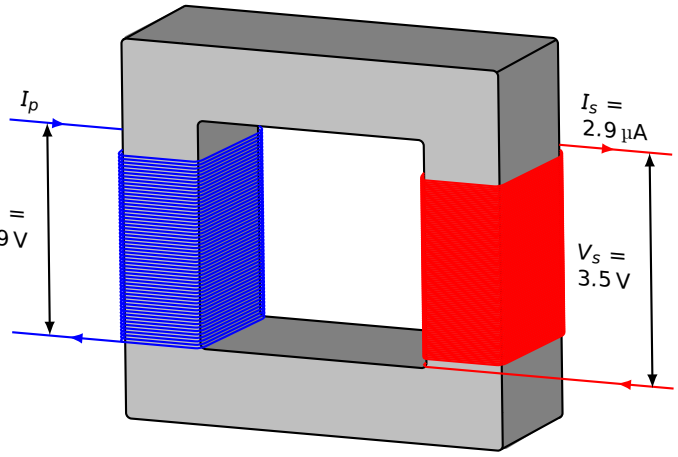
8)


I_p
I_s = 63 A
V_p = 77 V
V_s = 73 V

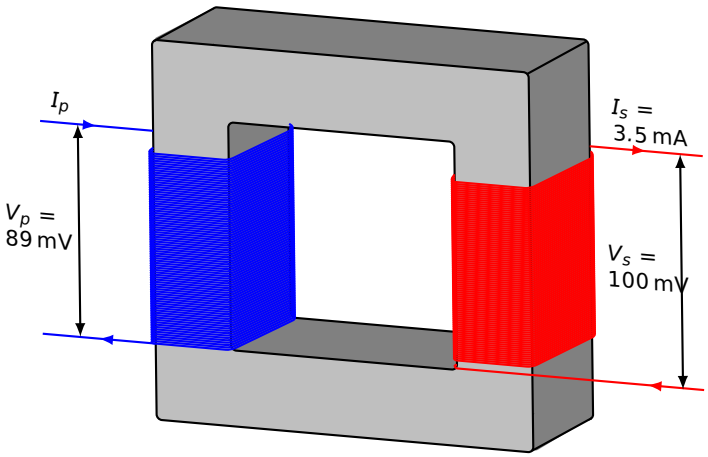
9)


I_p = 18 nA
I_s
V_p = 1.1 µV
V_s = 670 nV

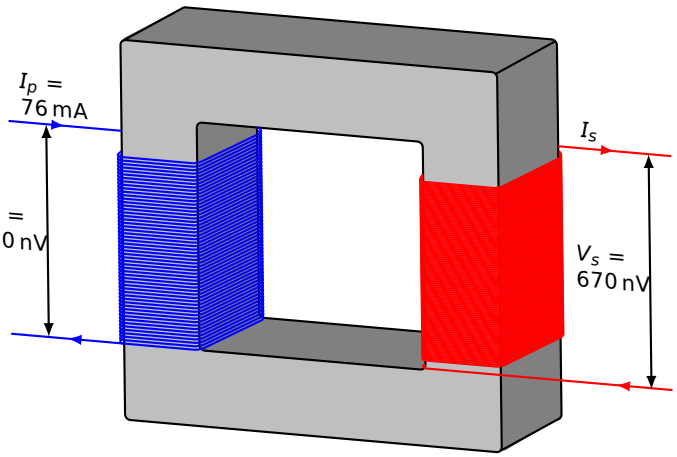
10)


I_p
I_s = 2.9 µA
V_p = 1.9 V
V_s = 3.5 V

11)


I_p
I_s = 3.5 mA
V_p = 89 mV
V_s = 100 mV

12)


I_p = 76 mA
I_s
V_p = 390 nV
V_s = 670 nV

Answers

1) $I_s = 1.9\,\mu\text{A}$
2) $I_p = 130\,\text{nA}$
3) $I_p = 6.4\,\text{MA}$
4) $I_s = 360\,\text{A}$
5) $I_s = 57\,\text{kA}$
6) $I_p = 670\,\text{A}$
7) $I_p = 710\,\text{A}$
8) $I_p = 60\,\text{A}$
9) $I_s = 29\,\text{nA}$
10) $I_p = 5.2\,\mu\text{A}$
11) $I_p = 3.9\,\text{mA}$
12) $I_s = 44\,\text{mA}$