



6

6.1

6.2

6.3

*6.4

6



1.

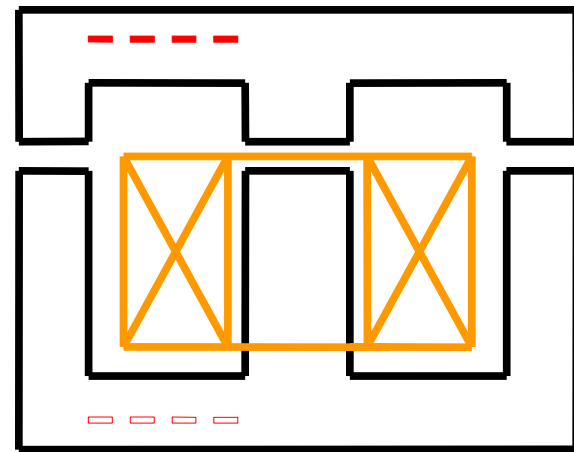
2.

3.

***4.**

6.1





6.1.1

1.

B

$$B = \frac{F}{\dots}$$

⋮

(T) 1T = 1Wb/ 2

⋮



2.

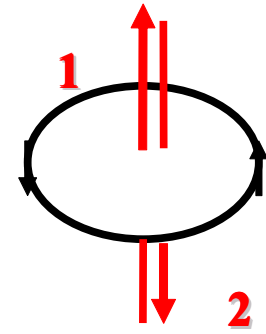


~~$1 \text{ Wb} = 1 \text{ T} \cdot \text{m}^2$~~

3

/ A/

$$\int_{\Sigma} \left(\int_{\partial \Sigma} H \right) = \Sigma$$



= —

4.



$$= \frac{1}{L} \text{ H/}$$

$$= \text{-----} = \text{-----} = \text{-----}$$

$$L = 4 \times 10^{-7} \text{ H/}$$



r

0

$$\begin{array}{c} = \\ \hline 0 \end{array} = \begin{array}{c} \hline \\ \hline 0 \end{array} = \begin{array}{c} \hline \\ \hline 0 \end{array}$$

0

6.1.2



1.

$\gg 1$ (

2×10^5)

2.



J

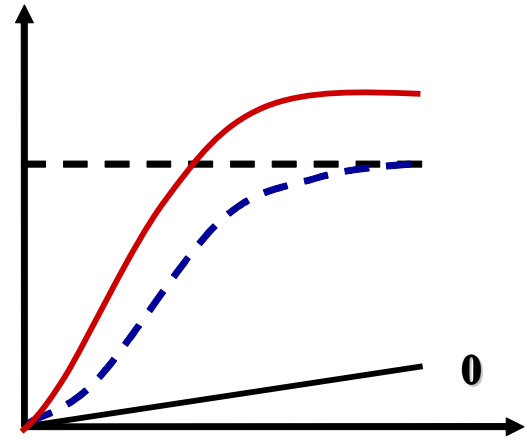
0

J

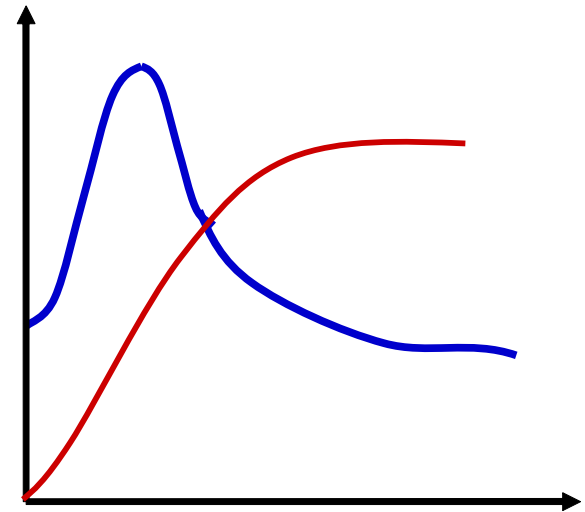
2011-11-1

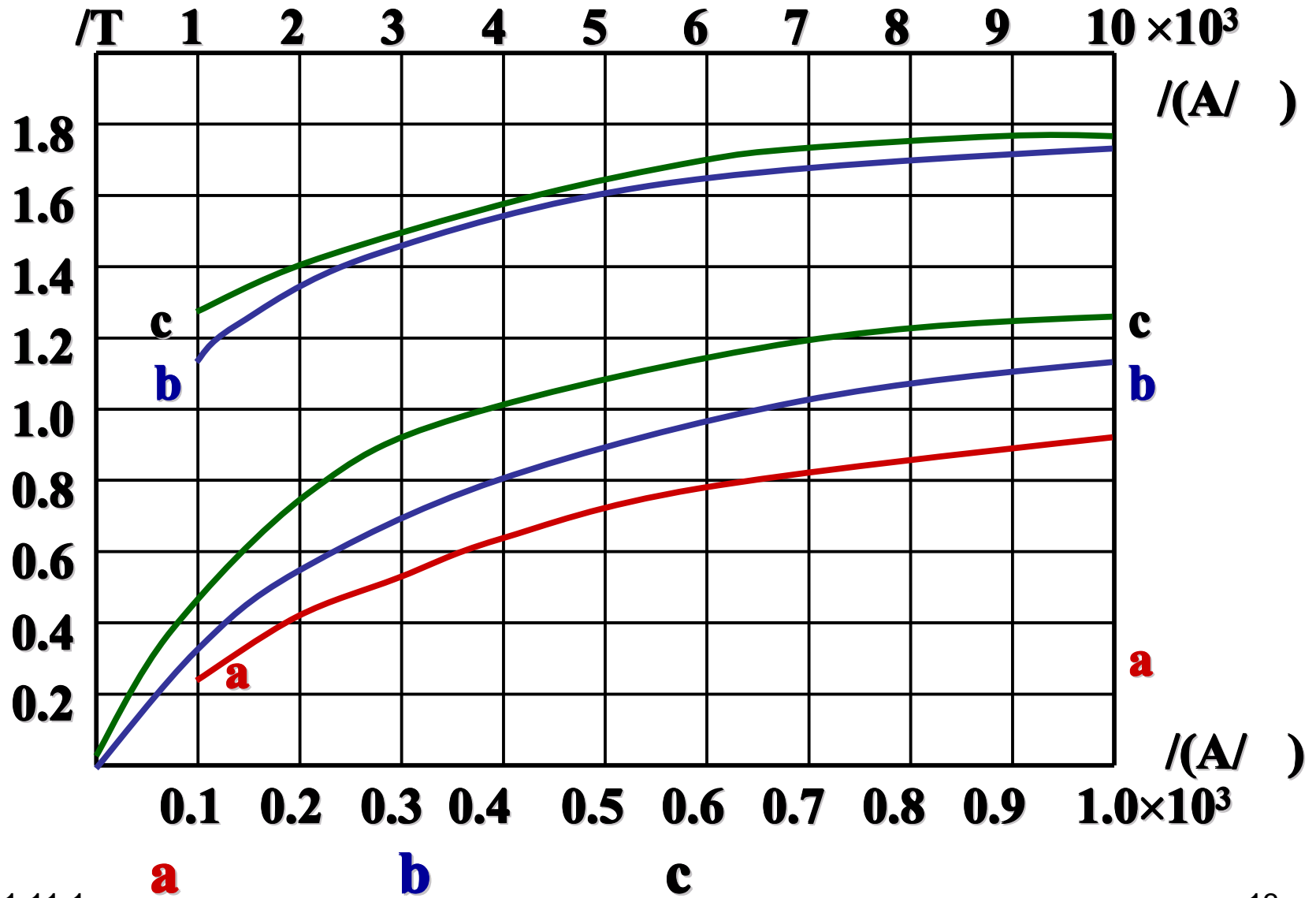
11

-



(Φ)



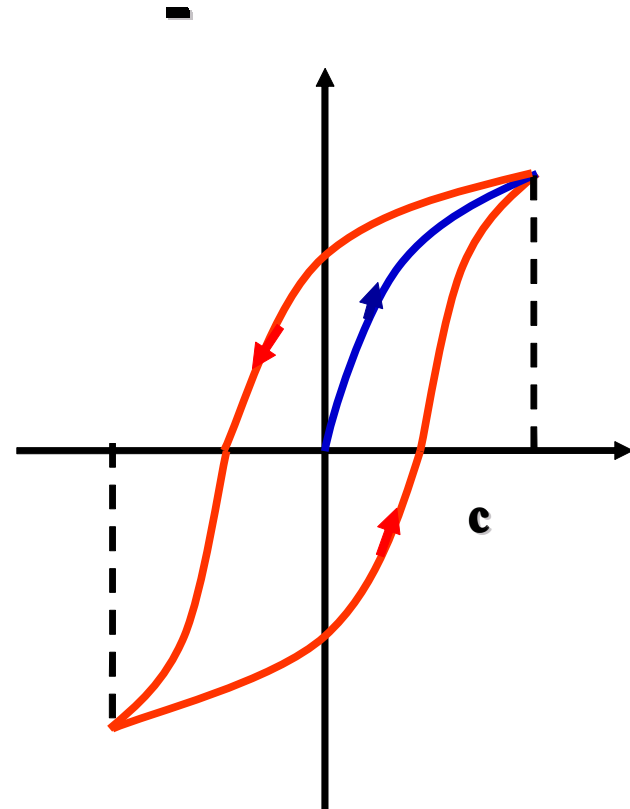


3



:

(= 0)

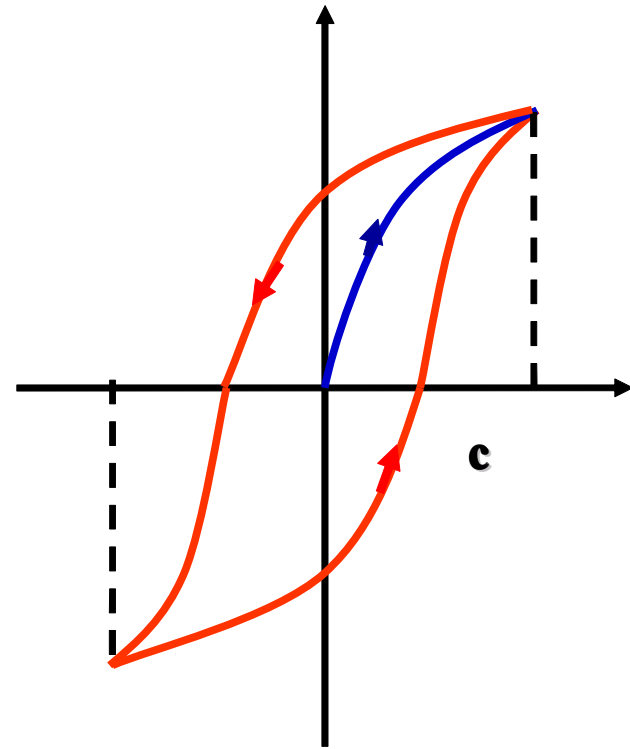


3.



$$= \mathbf{0}$$

c





(1)

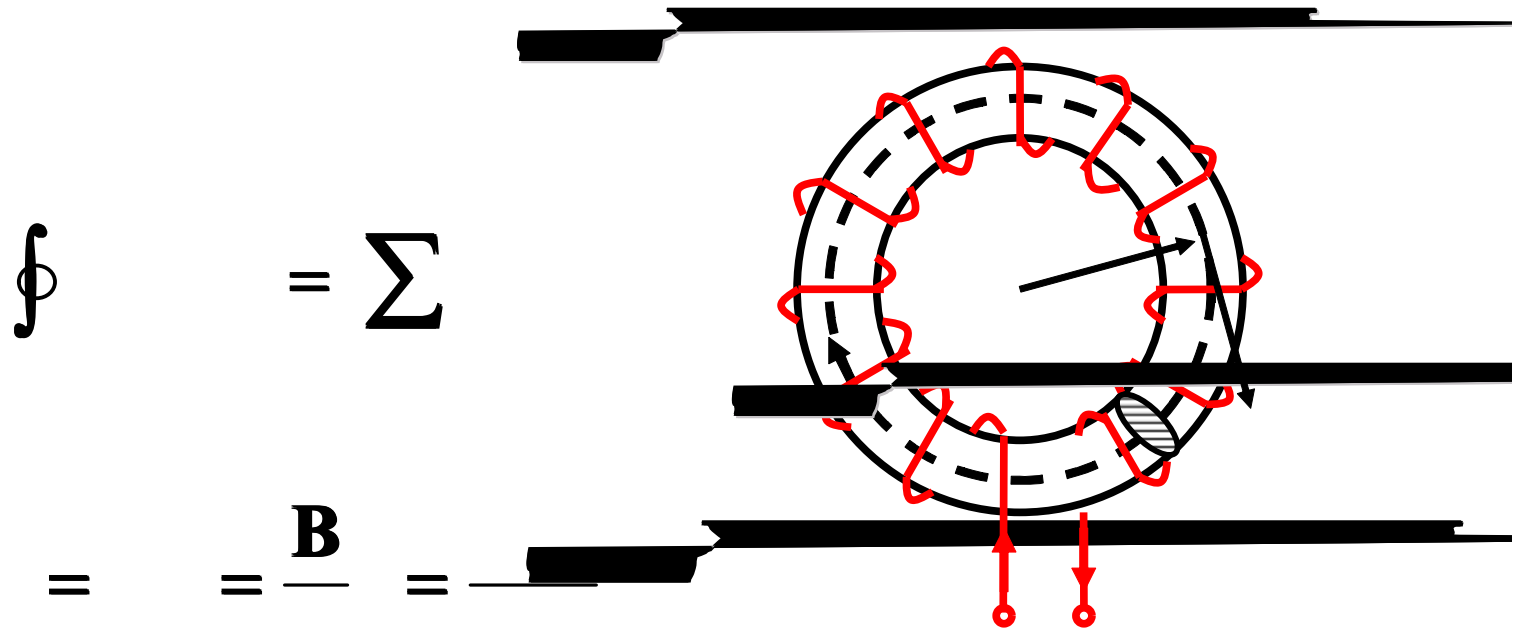
(2)

(3)

6.1.3



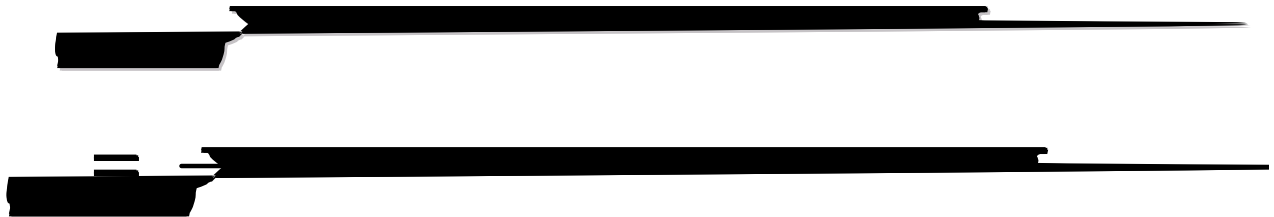
1.





$$\frac{=}{=} = \frac{=}{=}$$

2.



3.

) :

:

$$= 1 + \frac{1}{2} + \frac{1}{2^2} + \dots$$

$$= \sum_{n=1}^{\infty} \frac{1}{2^n}$$

$$1 + \frac{1}{2} + \frac{1}{2^2} + \dots$$



,





⋮

(1)

$$1 = \frac{1}{1}, \quad 2 = \frac{1}{S_2}, \quad \dots, \quad = \frac{1}{S_2}$$

(2)

(), 1

2

1

2

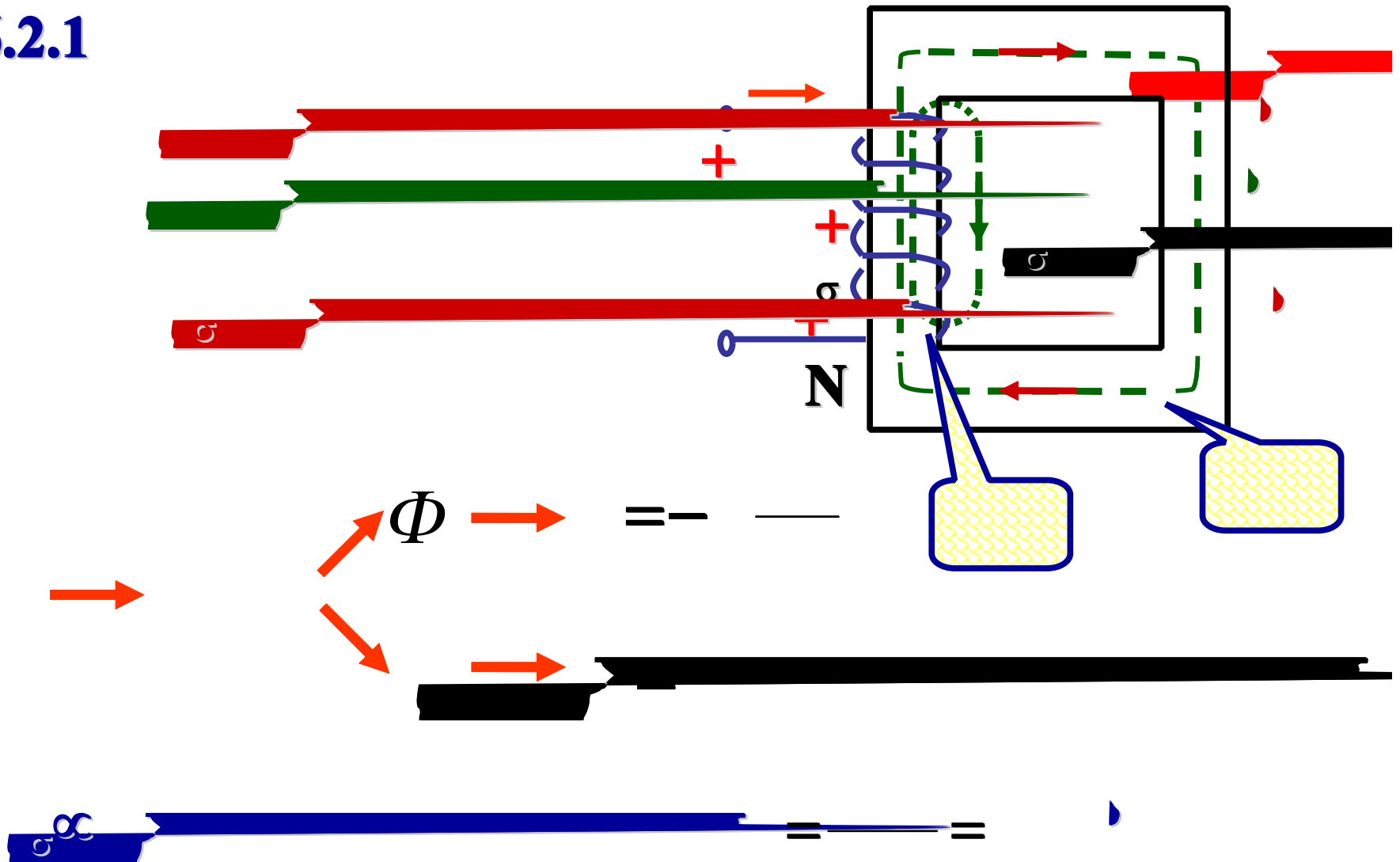
(3)

(4)

$$= \sum_{=1}$$

6.2

6.2.1



6.2.2

KVL:

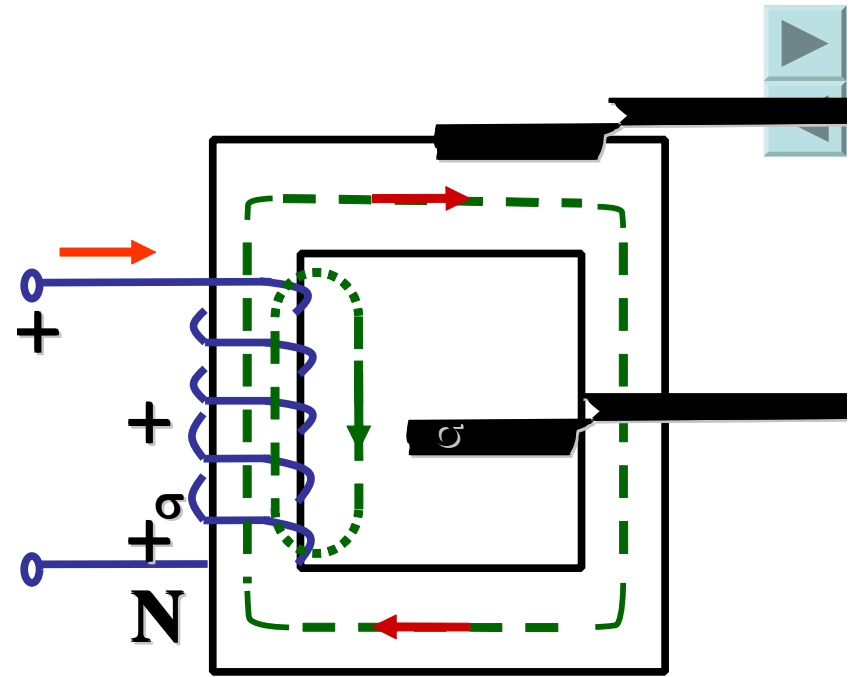
$$= - -$$

$$= + - + (-)$$

σ

$$\dot{=} + (- \dot{ }) + (- \dot{ })$$

$$= + \dot{ } + (- \dot{ })$$





$$\dot{} = \dot{} + \dot{} + (-\dot{})$$

$$= - \dots - (\dots) = \dots$$

$$= 2 \dots (90^\circ) \dots (-90^\circ)$$

$$= \frac{2}{\sqrt{2}} = \frac{2}{\sqrt{2}} \dots 4.44 \dots$$

σ

σ

$$\dot{} \approx \dots$$

$$\approx = 4.44 \dots = 4.44 \dots (V)$$

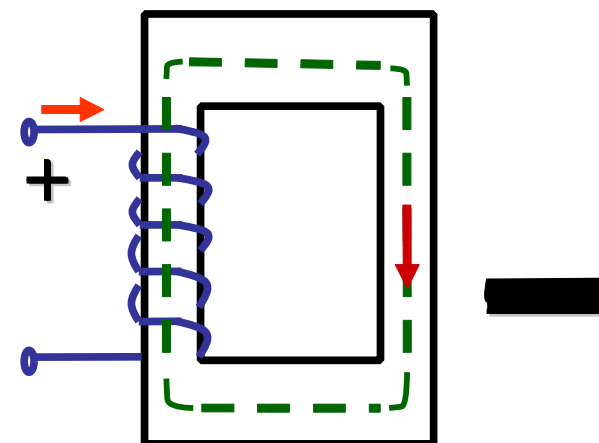
[T]

6.2.3



1. (Δ_c)

$$\Delta_c = 2 \Delta_c$$

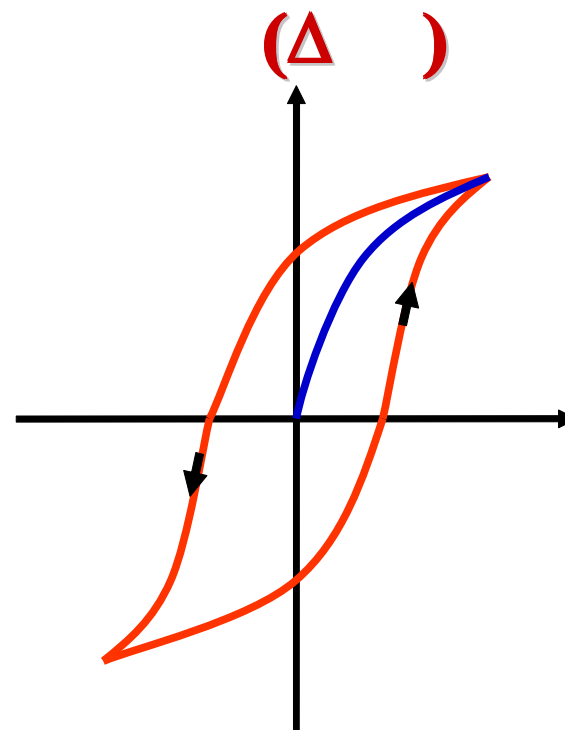


2. (Δ_F)

$$\Delta_F$$

1

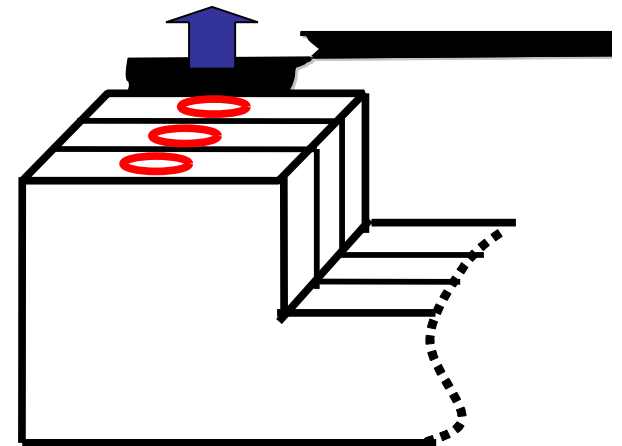
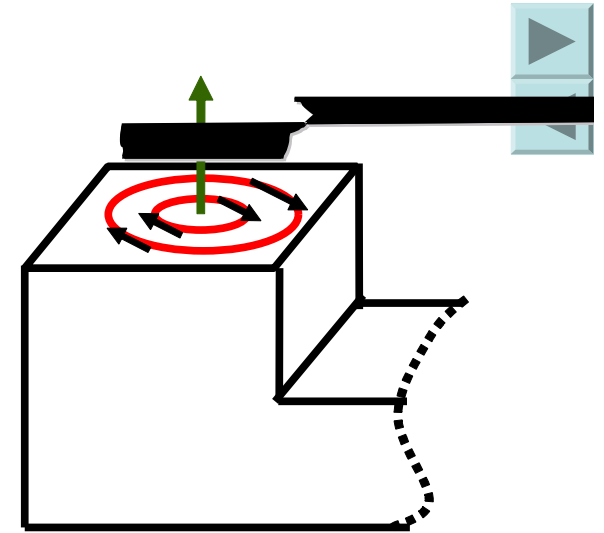
Δ



(2)

Δ

:



$$= \mathbf{c} = 2 + \mathbf{F}$$

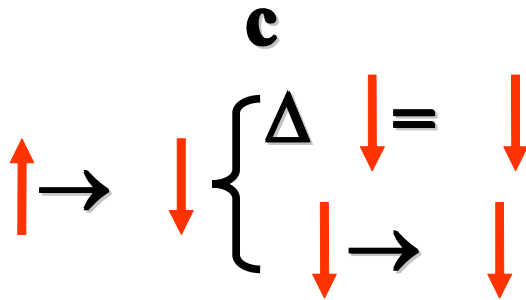


6.3

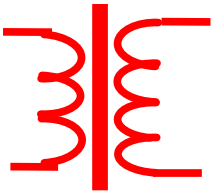
6.3.1

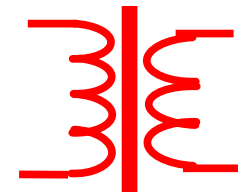


= **c**

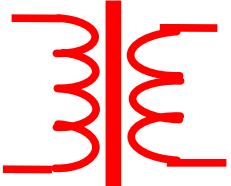


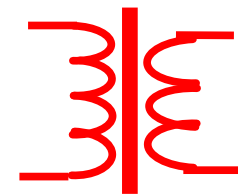


10.5kV  220kV



10kV 

...  $\frac{380}{220V}$



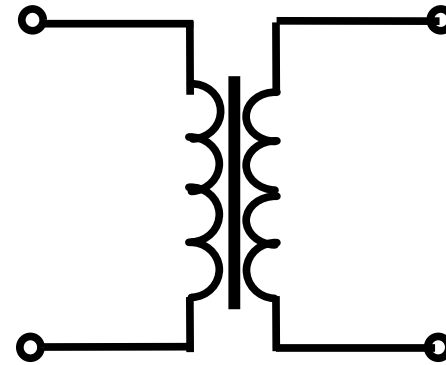
36V

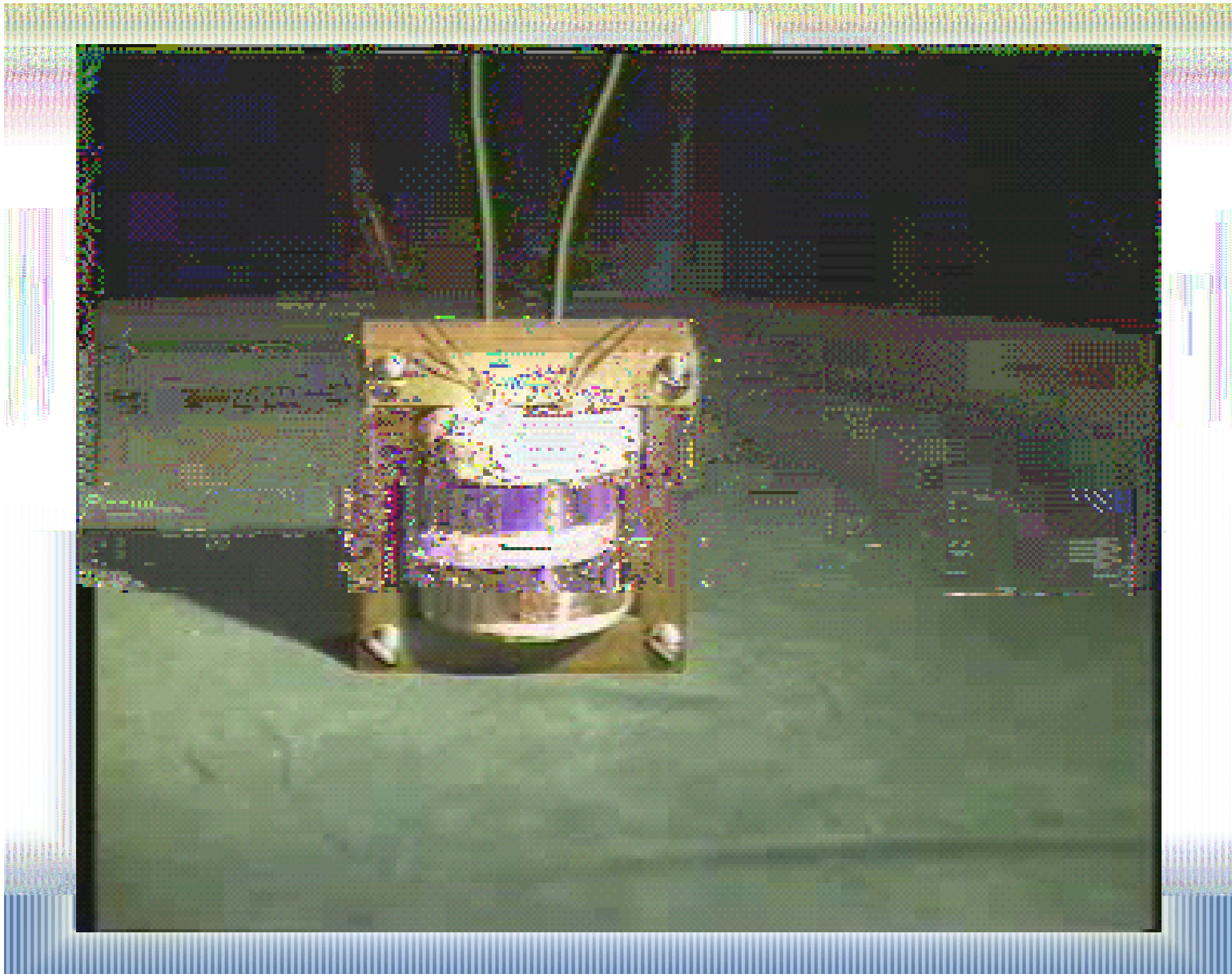


1.

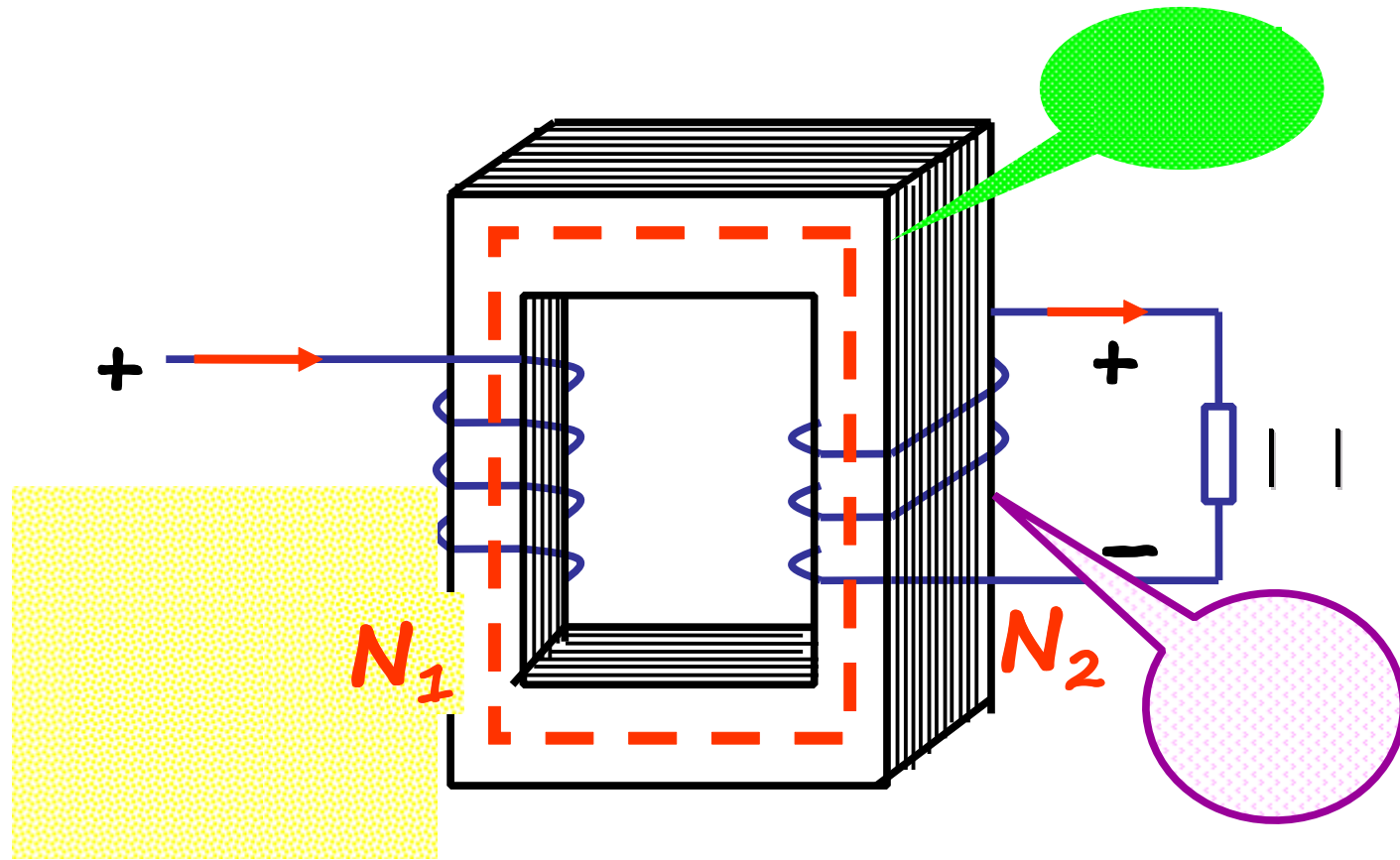


()





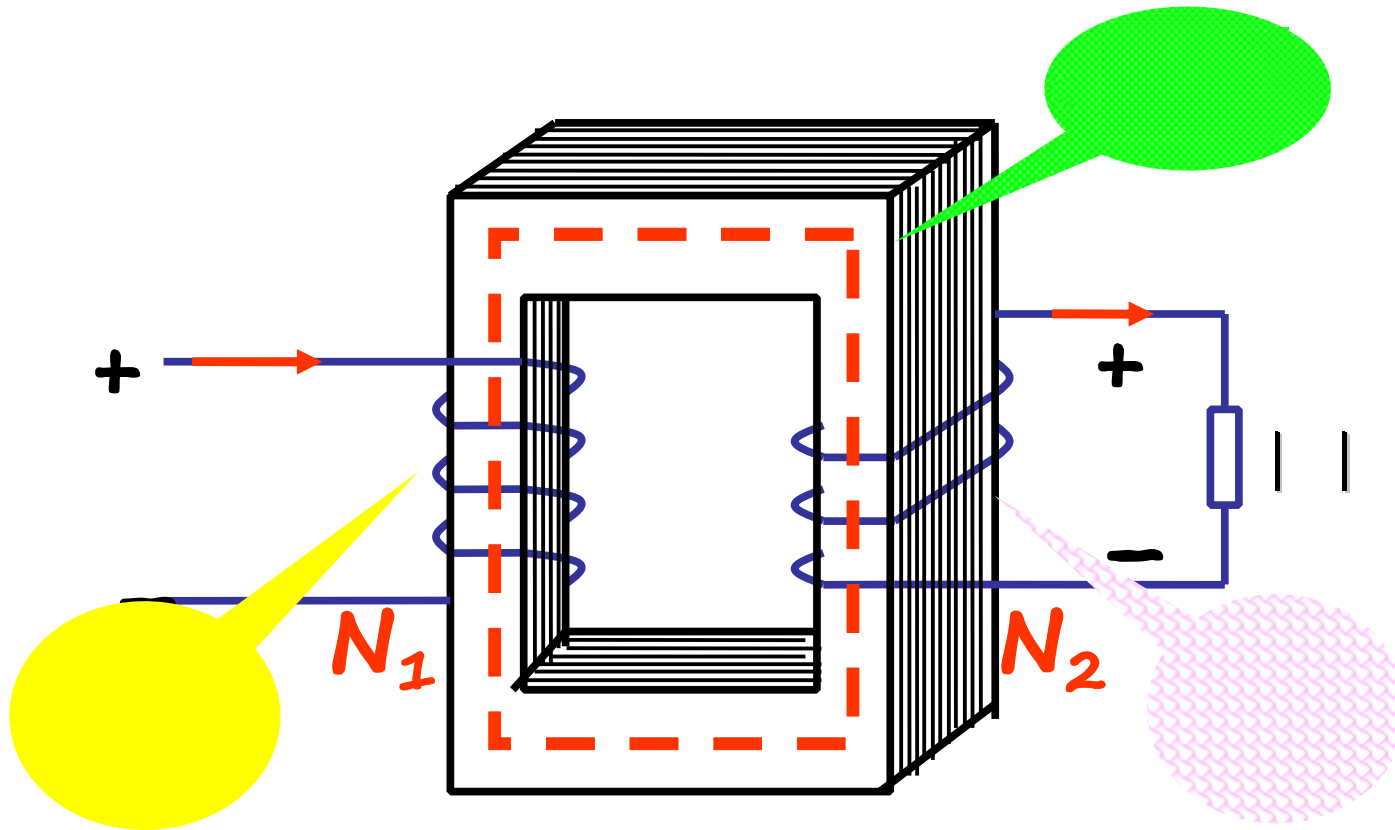
2.



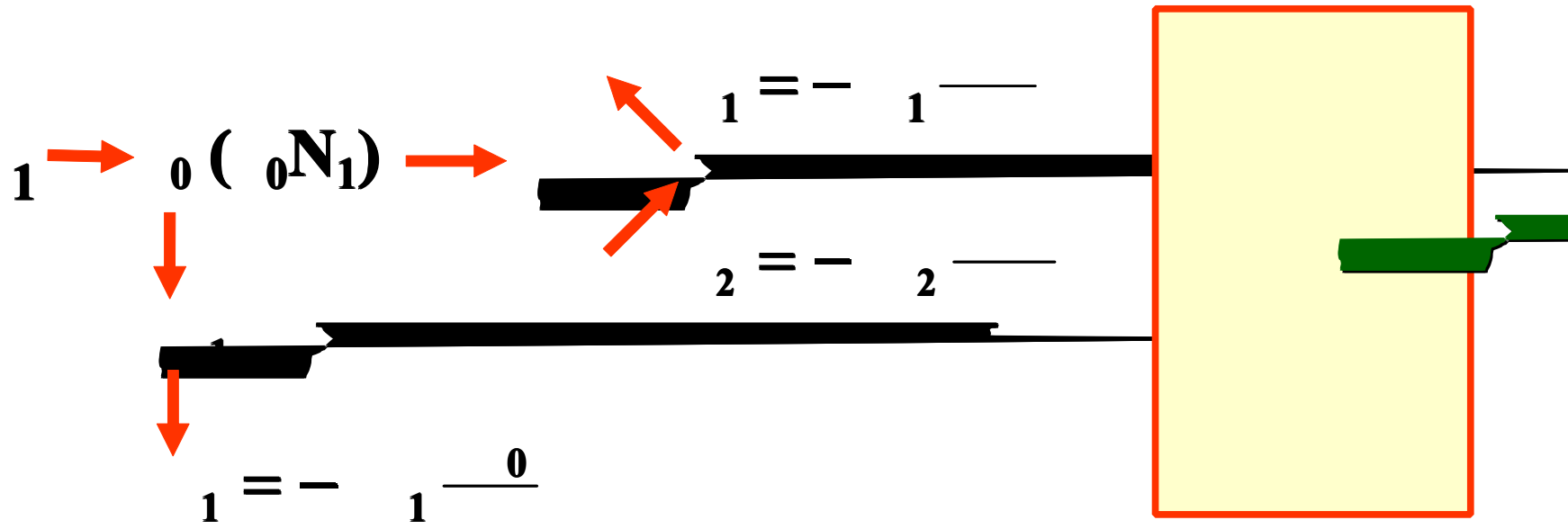
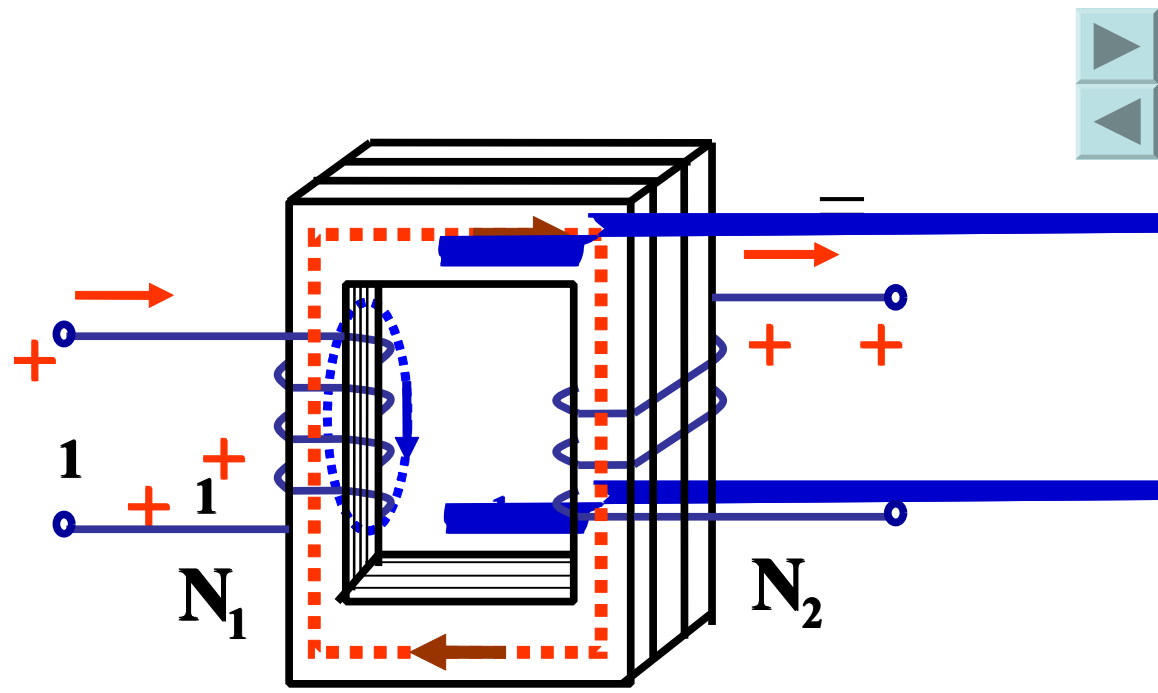
0.35mm

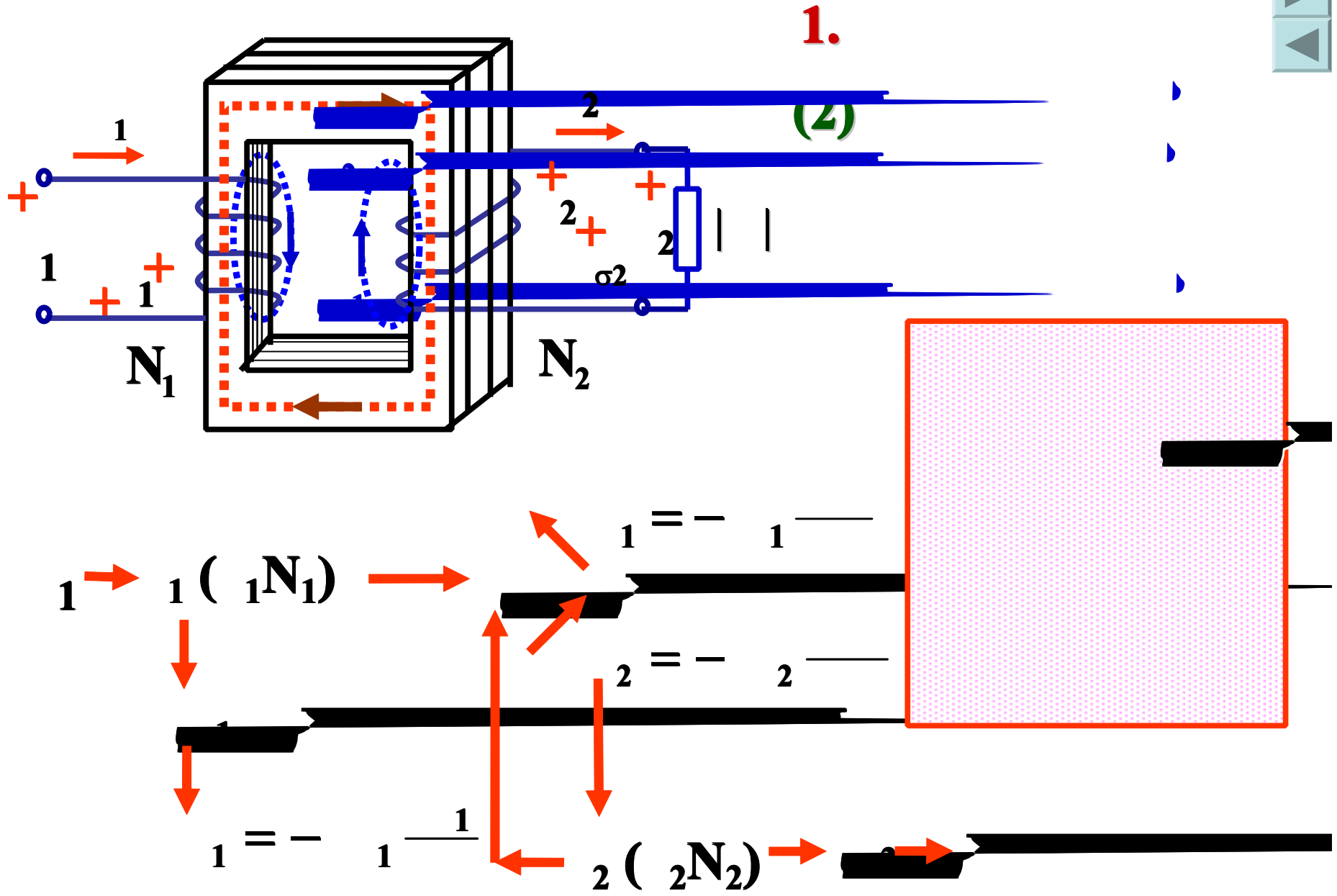
0.5mm

6.3.2



1.
(1)







2.

(1)

$$\Phi = \Phi$$

$$= - \frac{\Phi}{\sqrt{2}} = - \frac{\Phi}{\sqrt{2}}$$

$$= - \frac{1}{\sqrt{2}} \angle -90^\circ$$

$$\therefore \frac{1}{\sqrt{2}} = \frac{2}{\sqrt{2}} \Phi$$

$$\frac{1}{\sqrt{2}} = 4.44 \angle -90^\circ$$

$$\frac{2}{\sqrt{2}} = 4.44 \angle -90^\circ$$

$$\frac{2}{\sqrt{2}} = 4.44 \angle -90^\circ$$

(2)



KVL

$$\begin{aligned}
 \dot{U}_1 &= \dot{U}_{R1} - \dot{U}_{L1} \\
 &= \dot{U}_1 + \dot{U}_1 - \dot{U}_1
 \end{aligned}$$

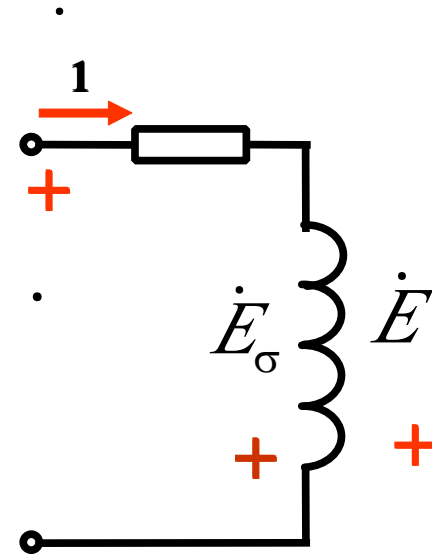
1 ;

1 = σ1 (

1 1 ()

,

$$\dot{U}_1 \approx - \dot{U}_1 \rightarrow \dot{U}_1 \approx \dot{U}_1 = 444$$



KVL



2 2 2

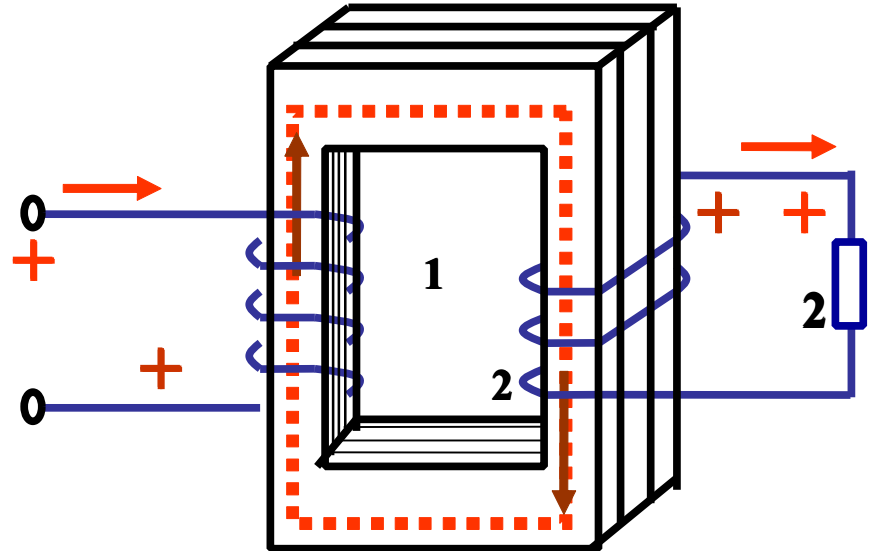
$$\text{---} \approx \frac{E}{E} = \text{---} =$$

3.

()



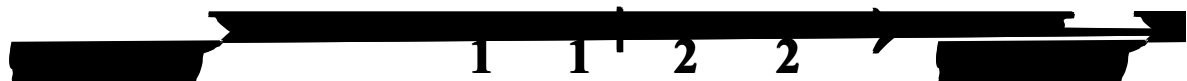
→ $\dot{} = \dot{}$



$1 \approx 1 = 4 \ 44$

1

0 1 →





$$\frac{1 \ 1^+ \ 2 \ 2}{1 \ 1} = \frac{0 \ 1}{1}$$

$$\frac{1 \ 1}{0 \ 1} = \frac{2 \ 2}{1} \left\{ \begin{array}{l} 1. \\ 2. \end{array} \right.$$

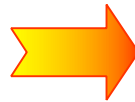


$$0 \approx (2 \ 3) \% \ 1N$$

$$1 \ 1 \approx - \ 2 \ 2$$

$$\overset{\cdot}{1} \ \overset{\cdot}{1} \approx - \ \overset{\cdot}{2} \ \overset{\cdot}{2}$$

$$1 \ 1 \approx 2 \ 2$$

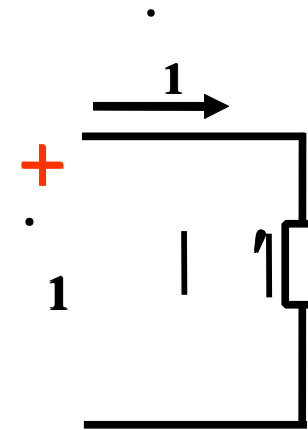
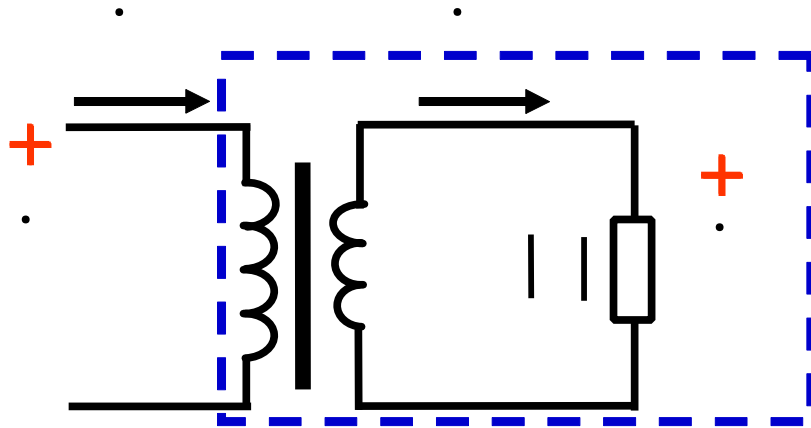


$$\text{---} \approx \text{---} = \text{---}$$





4.



$$\left| \right| = \frac{2}{2}$$

$$\left| \right|' = \frac{1}{1}$$

$$\left| \right|' = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \frac{1}{1} = \left| \right|$$

$$\left| \right|' = \left| \right|$$



1:

= 120V

$\omega_0 = 800$

Ω

= 8 Ω

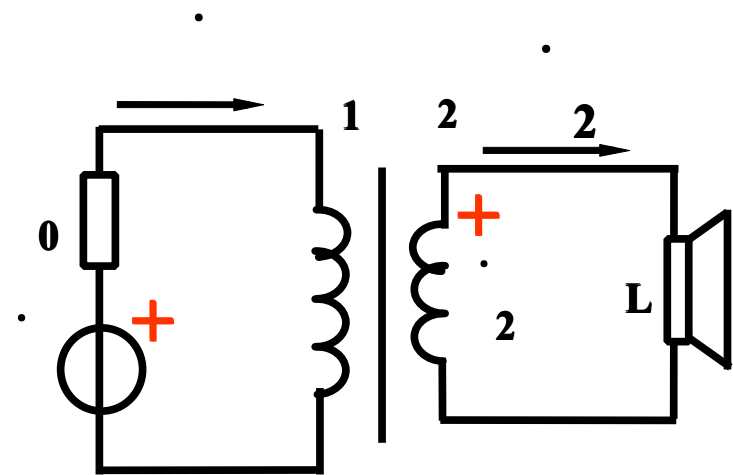
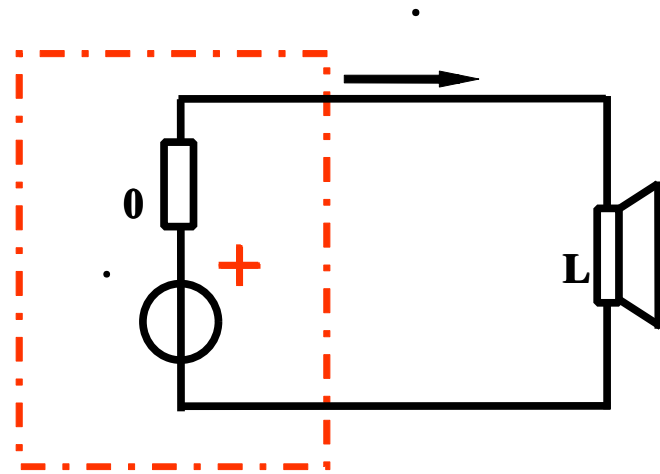
: (1) , L =

2

,

: (1)

= $\sqrt{\quad}$ = $\sqrt{\quad}$ =





$$= \left(\frac{120}{800 + 800} \right)^2 \times 800 = 45 \text{ W}$$

2

$$= \left(\frac{120}{800 + 8} \right)^2 \times 8 = 0.176 \text{ W}$$

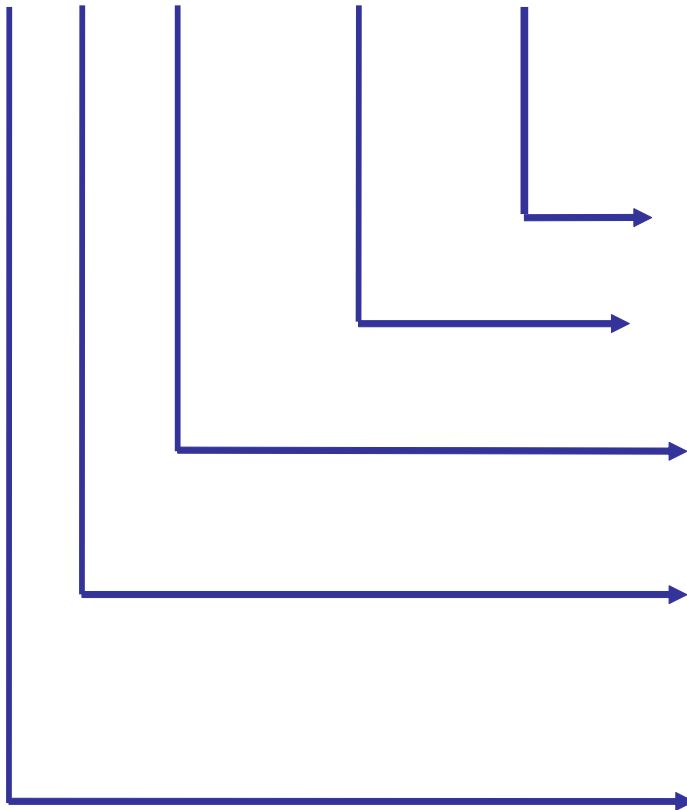
$$\underline{\underline{I_L = 0}}$$



5.

1)

S J L —1000/10



(V)
(VA)

{ J:
F:
S:
D:

2)



1N **2N**



1N

2N

1N

2N

1N

2N



2)



N



$$N = \frac{2N}{2N} \approx \frac{1N}{1N}$$

$$N = \sqrt{3} \frac{2N}{2N} \approx \sqrt{3} \frac{1N}{1N}$$

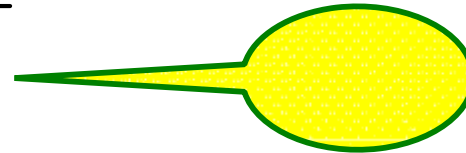
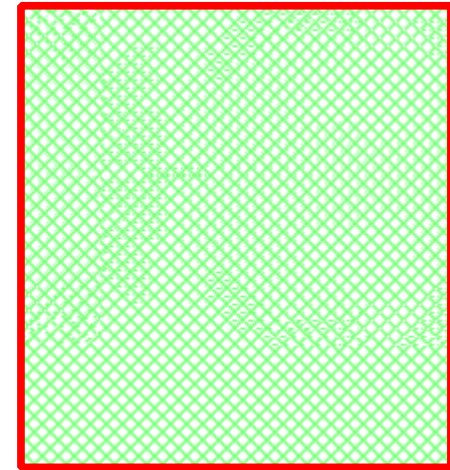
()



$$N = 1N \times 1N$$

$$2 = \frac{2}{2} \mathbf{c}$$

$$1 = \frac{2}{2}$$



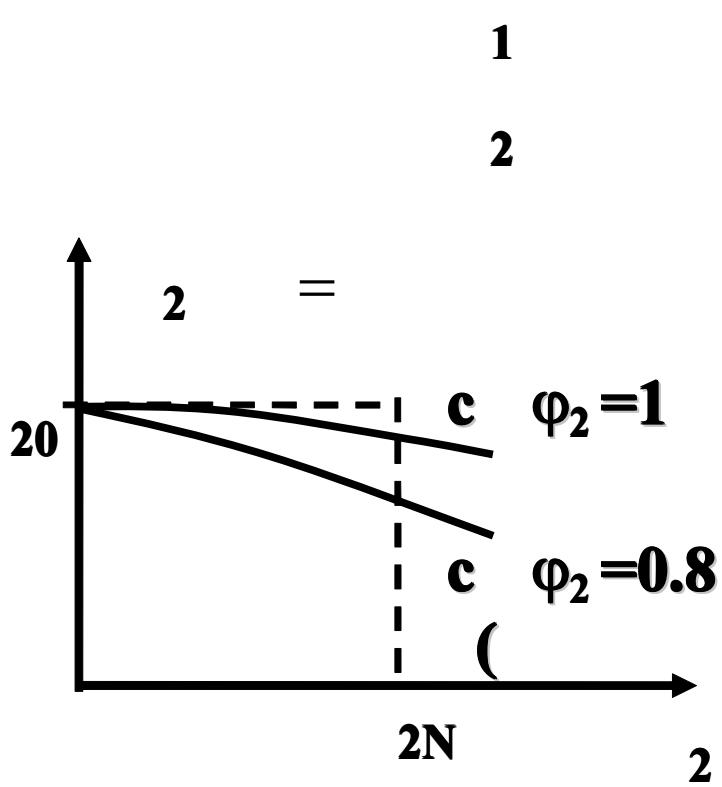
N ≠

1 ≠

2

6.3.3

1.



$$\Delta \% = \frac{20 - 19}{20} \times 100 \% = 5\%$$



2.

(Δ_c)

(Δ_F)

$$= \frac{2}{1} = \frac{2}{2^+ \quad C^+ \quad F}$$

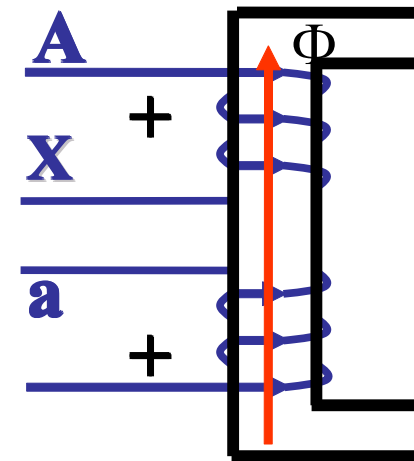
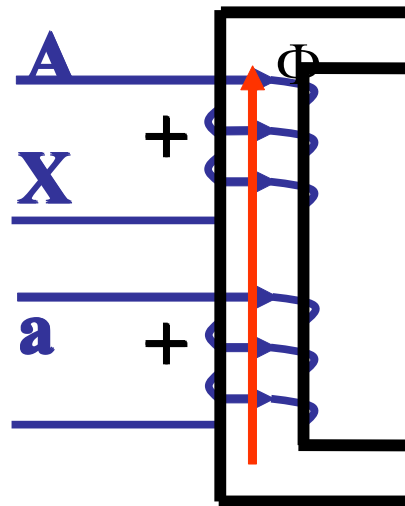
95% ,

(50 75)% ,

6.3.4

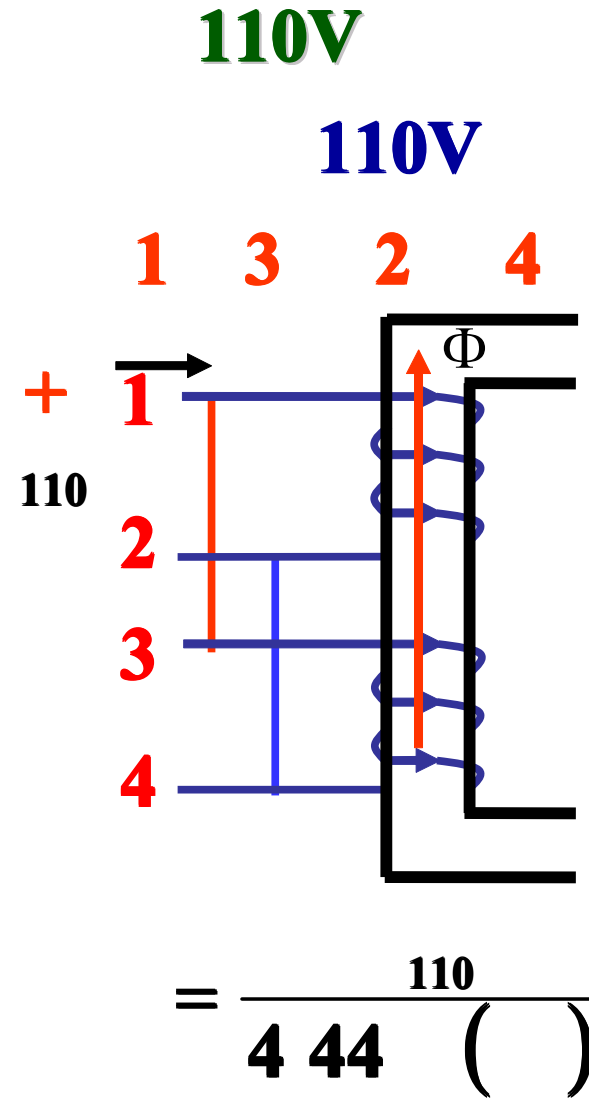
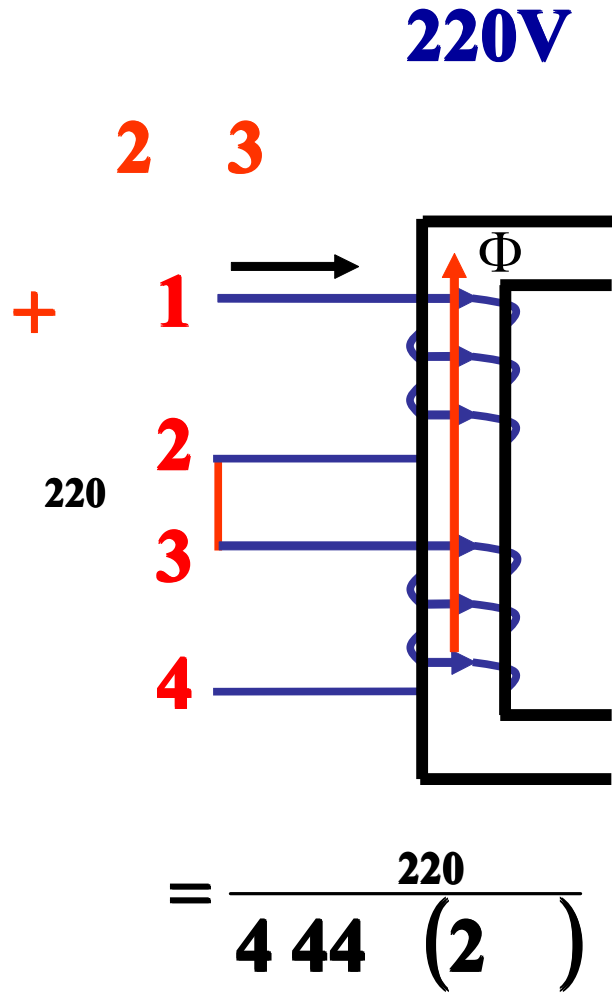
1.

()
(
(





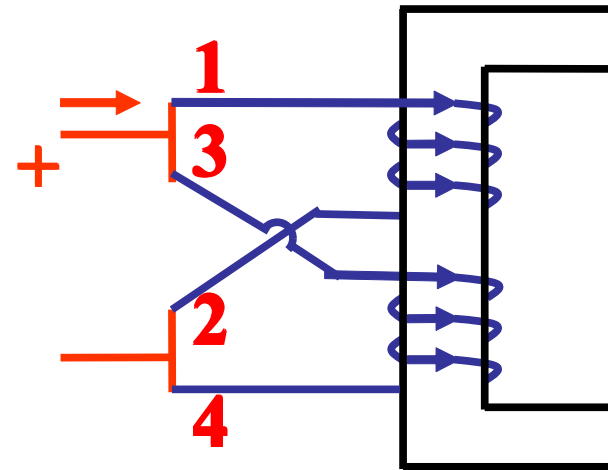
2.



(220/110)



1 **110V**

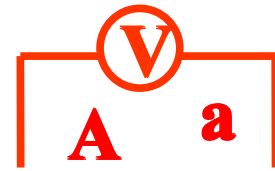


2



$$1 = 1 \quad 1 = 1$$

$$1 = \frac{\quad}{1}$$



(X -) ,

AX

AX

AX

Aa

a



A

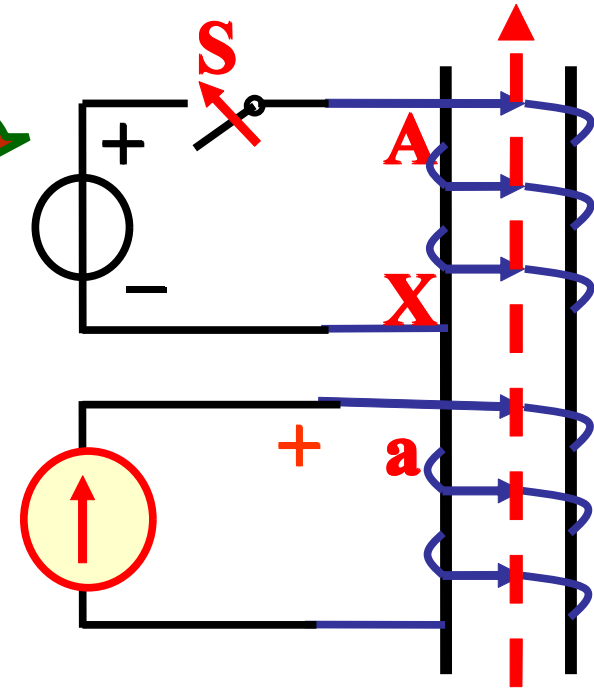
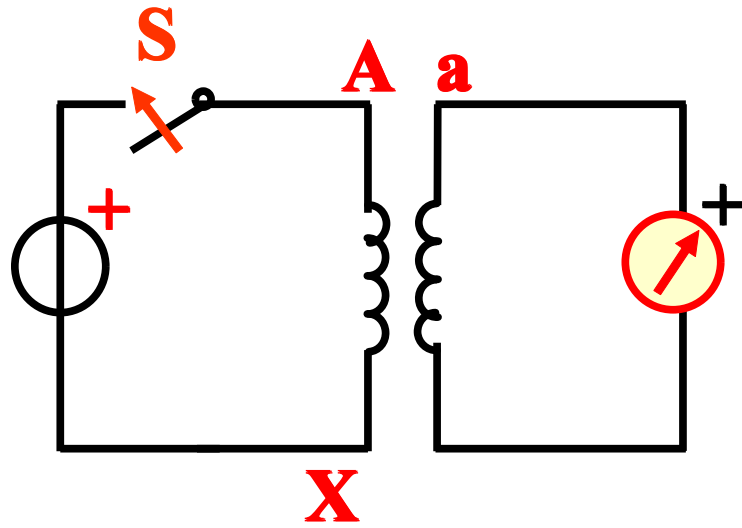
a

X

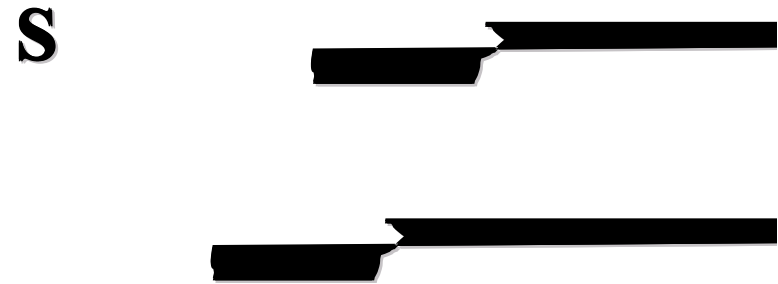
A

X

a

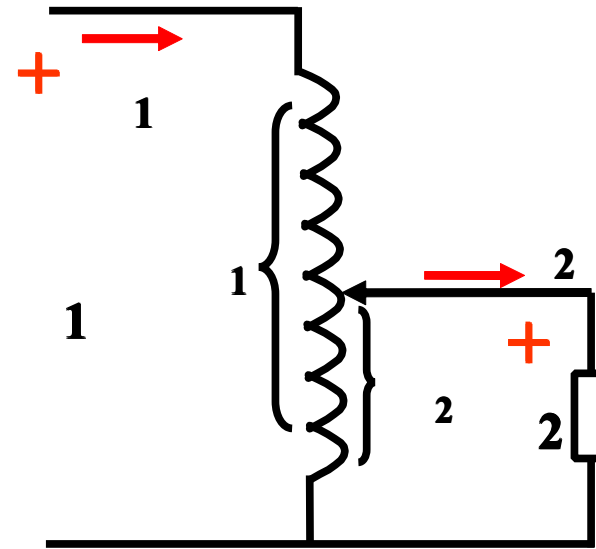


S
A-a
;
S
A-

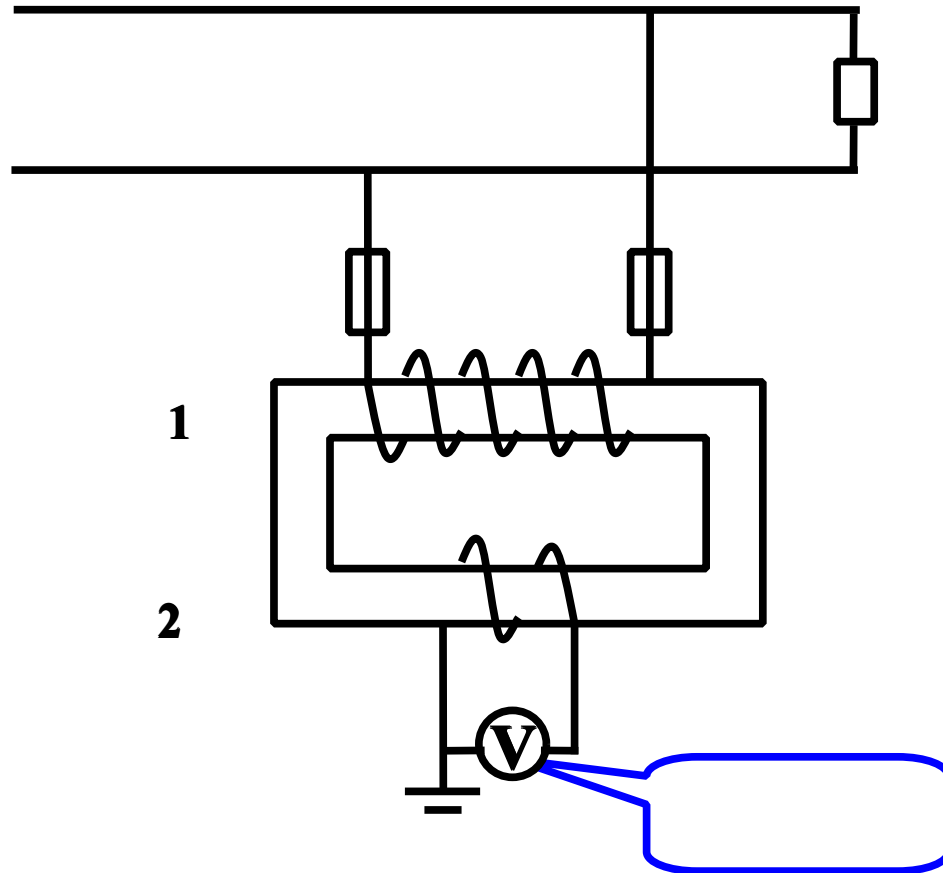


6.3.5

$$\frac{1}{2} = \frac{1}{2} =$$
$$\frac{1}{2} = \frac{2}{1} = \mathbf{1}$$



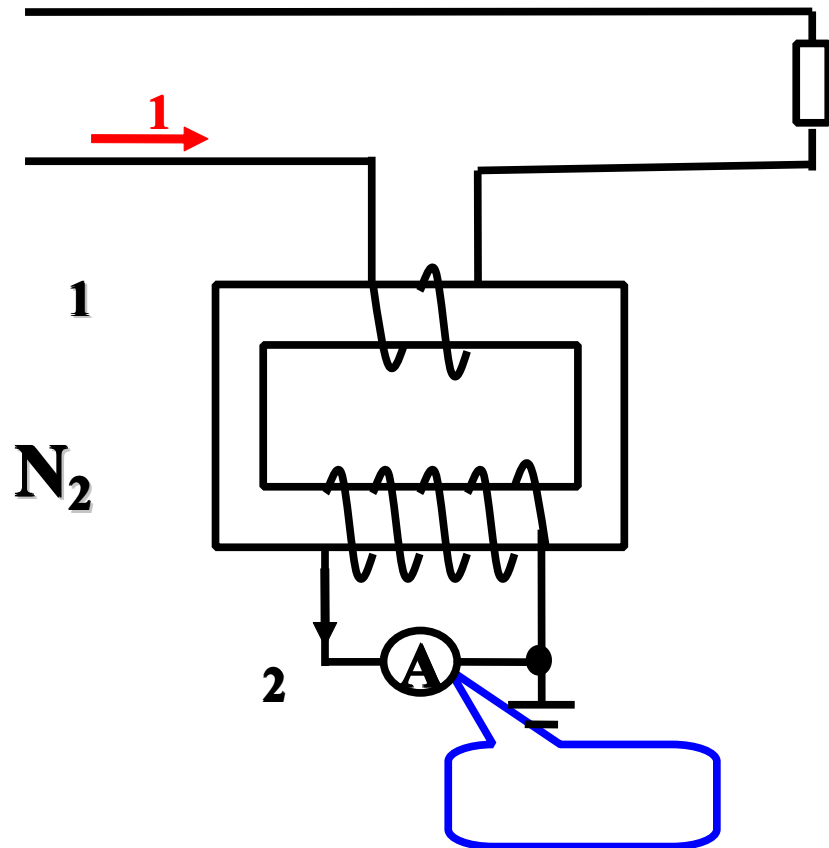
2.



$$= \times \frac{1}{2}$$



3.



1.

2.

$$N_2 = N_1 \times \frac{2}{1}$$

