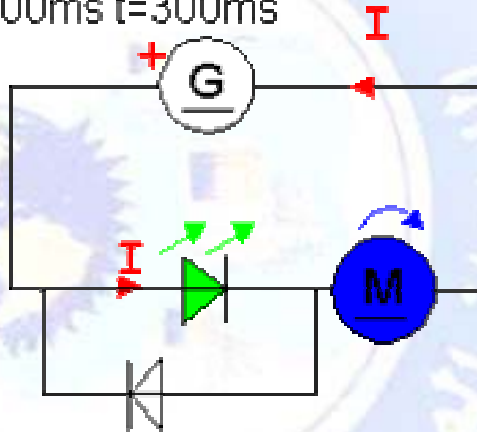




-1
-1-1

I.

t=0ms t=100ms
t=200ms t=300ms



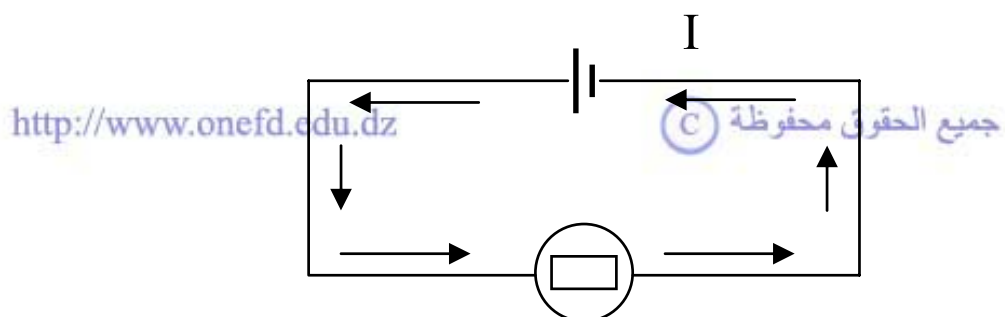
Δq

Δt

$$I = \frac{\Delta q}{\Delta t} :$$

.(Directionnel Courant) DC

=



-2-1 :

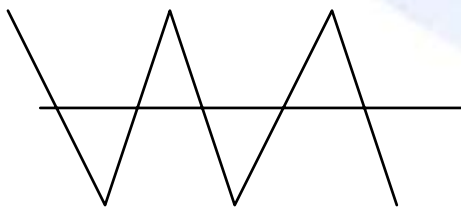
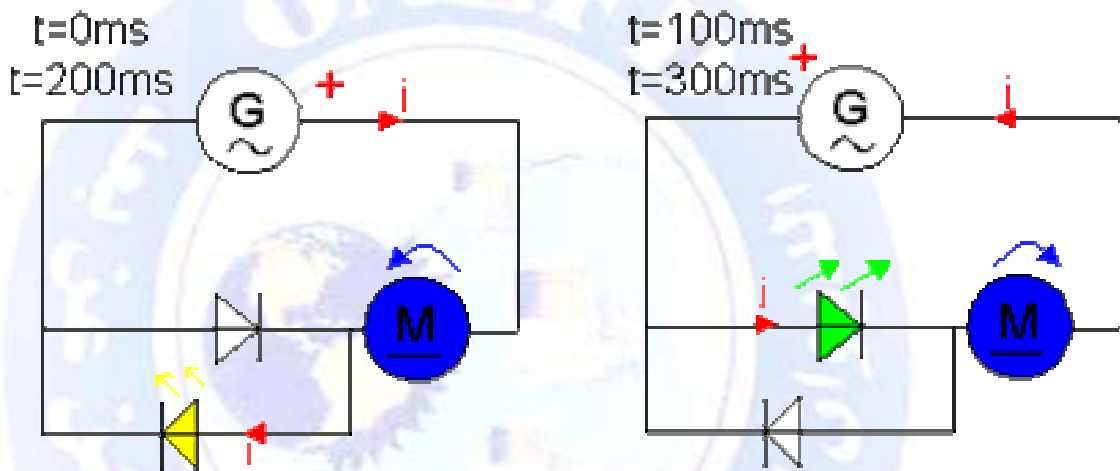
:

•
•

.i

.(Alternatif Courant) AC

~

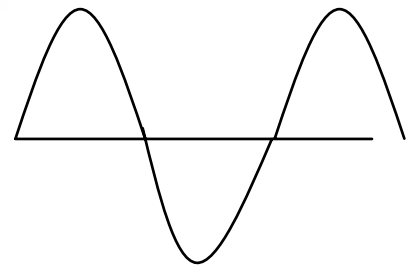


أسنان منشار

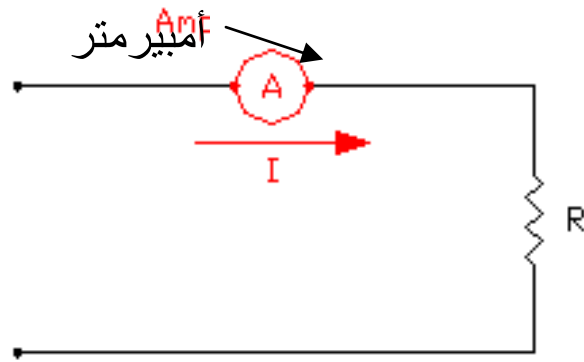


مربع

جيبی -3-1 :



. A (Ampère)



:

)

.(
50 Hz

:

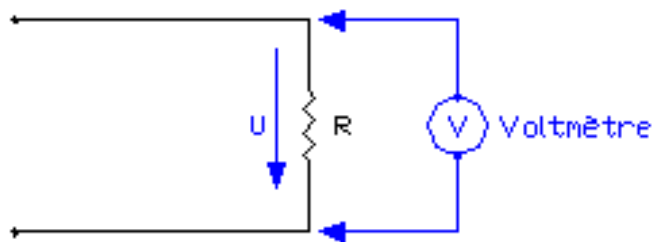
	50 – 60 Hz	
	15 – 30000 Hz	
	30000 – $30 \cdot 10^6$ Hz	
	$30 \cdot 10^6$ – $300 \cdot 10^6$ Hz	
	$300 \cdot 10^6$ – $3 \cdot 10^9$ Hz	

-2 _____ :

-1-3 _____ :

U

.V (Volt)



<http://w>

جميع الحقوق

-2-3 : _____



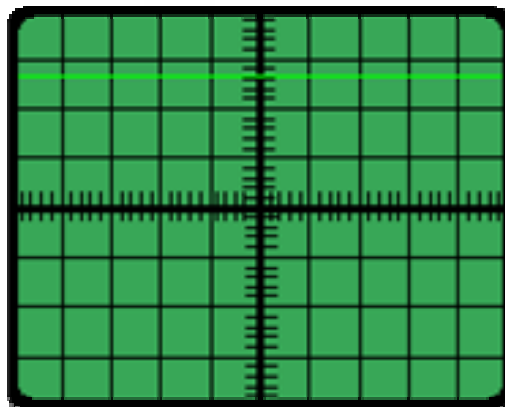
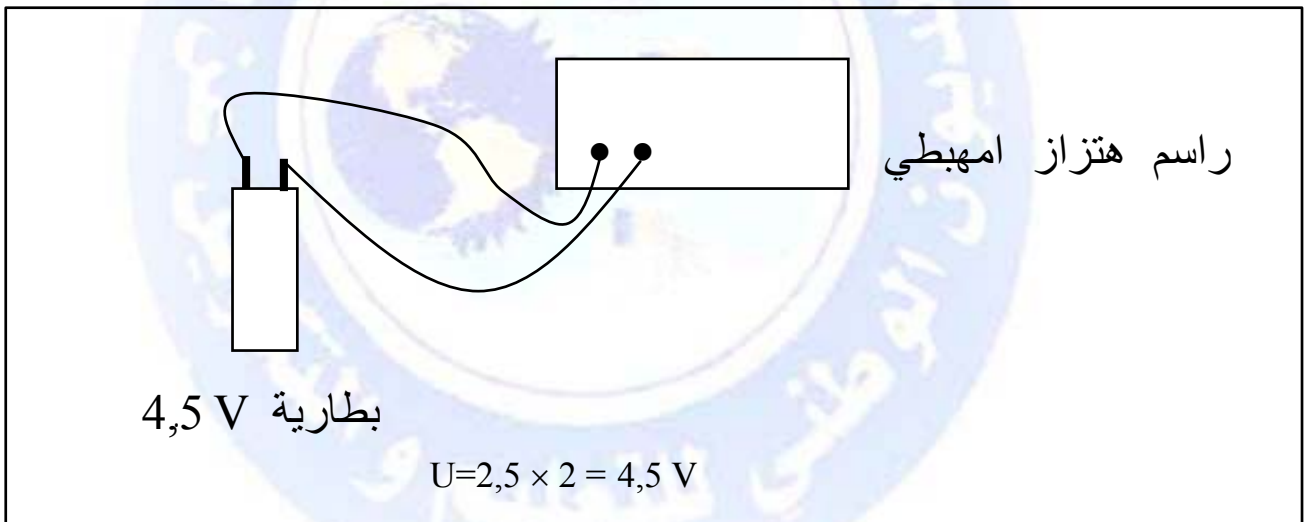
(1 × 1 cm)

_____ - _____

_____ :

DC

/ 2 V

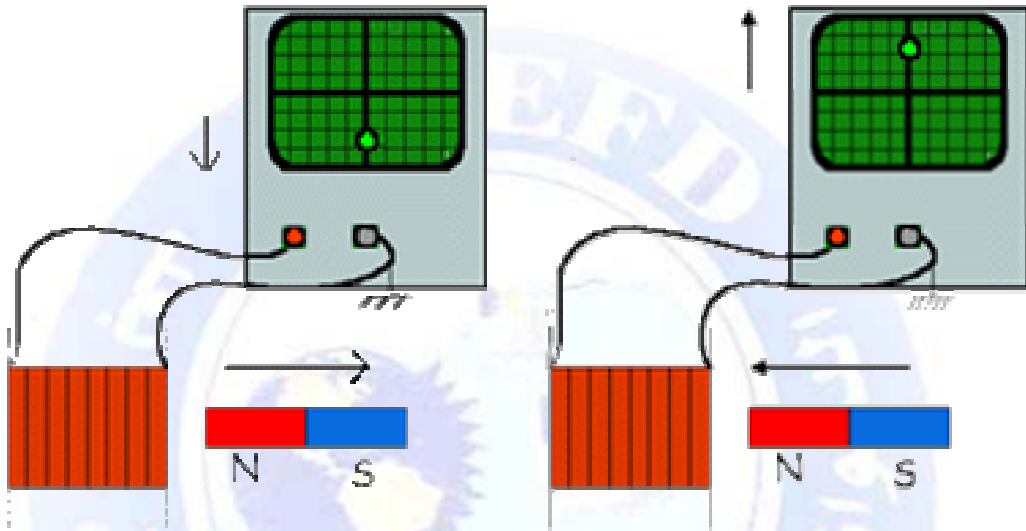


- _____ :

_____ :

•
_____ :

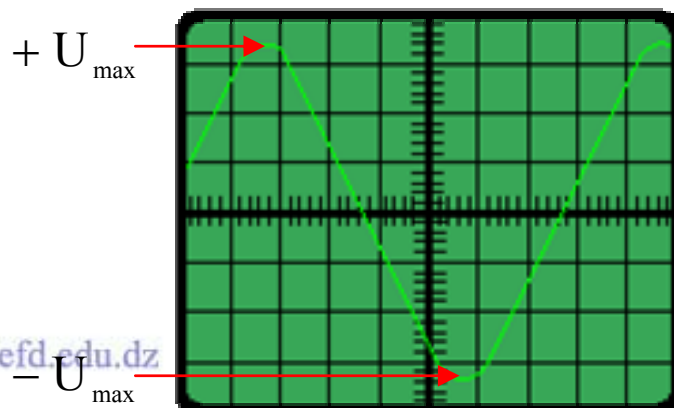
) () (



_____ :

$+U_{\max}$

$-U_{\max}$

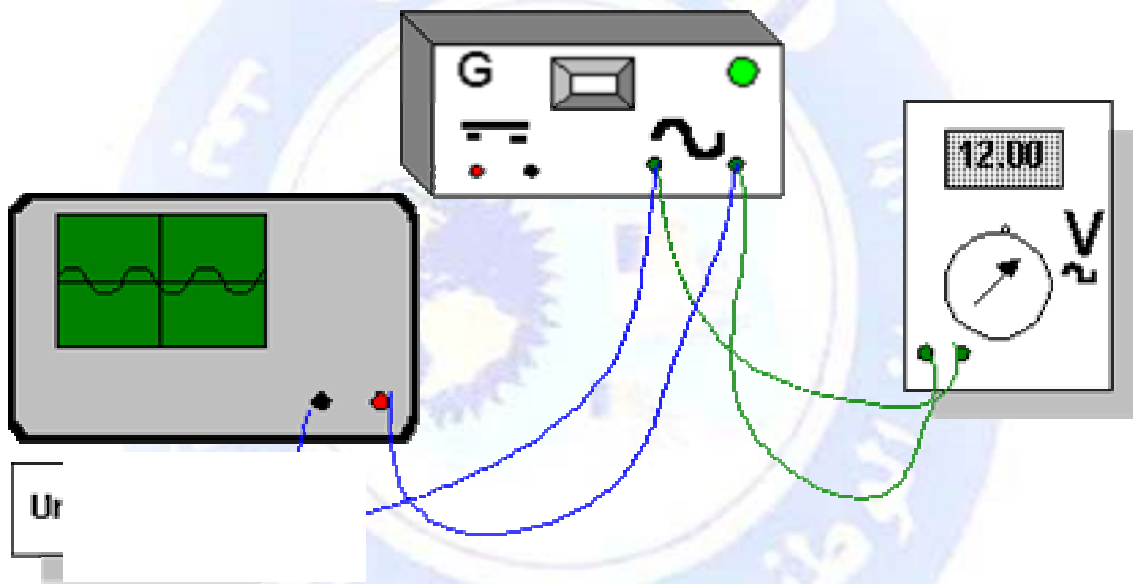


_____ •

(GBF)

_____ :

GBF



.() .

_____ -3-3 :

_____ -أ :

U_{\max} () U_{\max} =

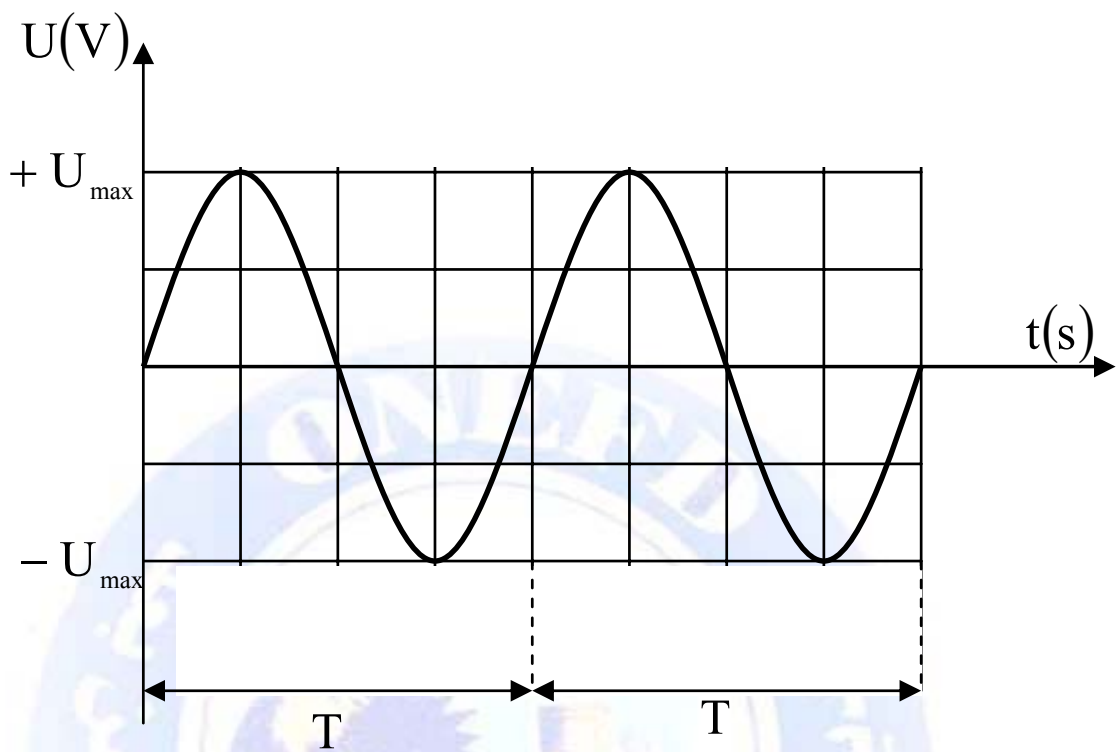
$U_{\max} = k \cdot$ ×

y

_____ - () :

T

.(s)



: (Hz)

f

: -



هرتز

$$T = \frac{1}{f}$$

$$f = \frac{1}{T}$$

: -

: U_{eff}

$$\frac{U_{\text{max}}}{U_{\text{eff}}} = \sqrt{2}$$

: I_{eff}

I_{max}

$$\frac{I_{\text{max}}}{I_{\text{eff}}} = \sqrt{2}$$

<http://www.onefd.edu.dz>

جميع الحقوق محفوظة ©

_____:

50 Hz

220 V



1: _____

50 Hz

60 Hz

/1

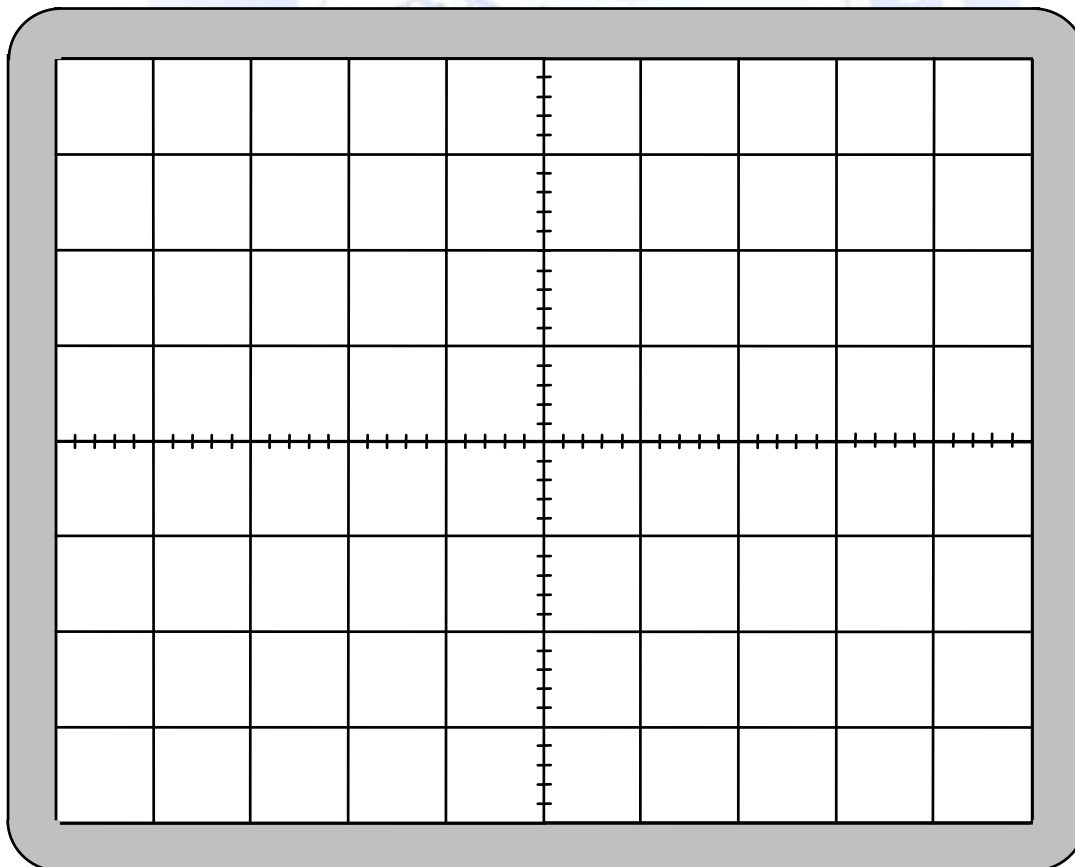
/2

2: _____

:

3 V

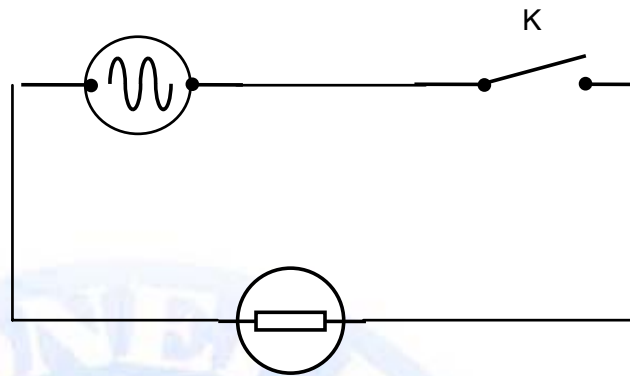
(U=0 t=0) 10 ms 6 V



2V/cm
2,5ms/cm

3:

:

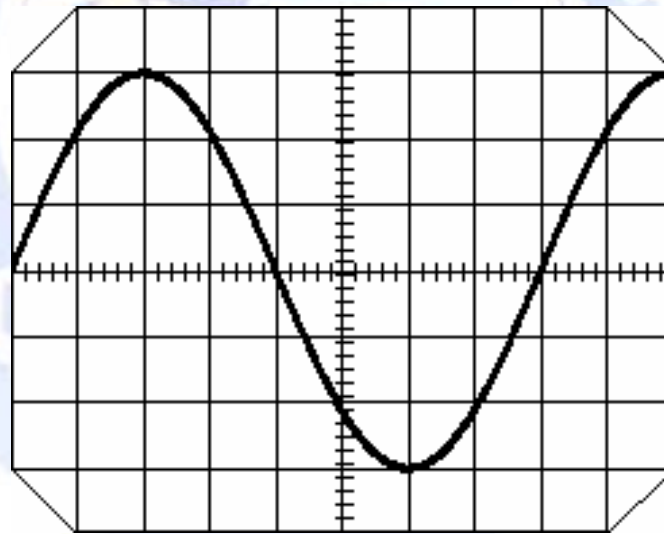


/1

/2

/3

:



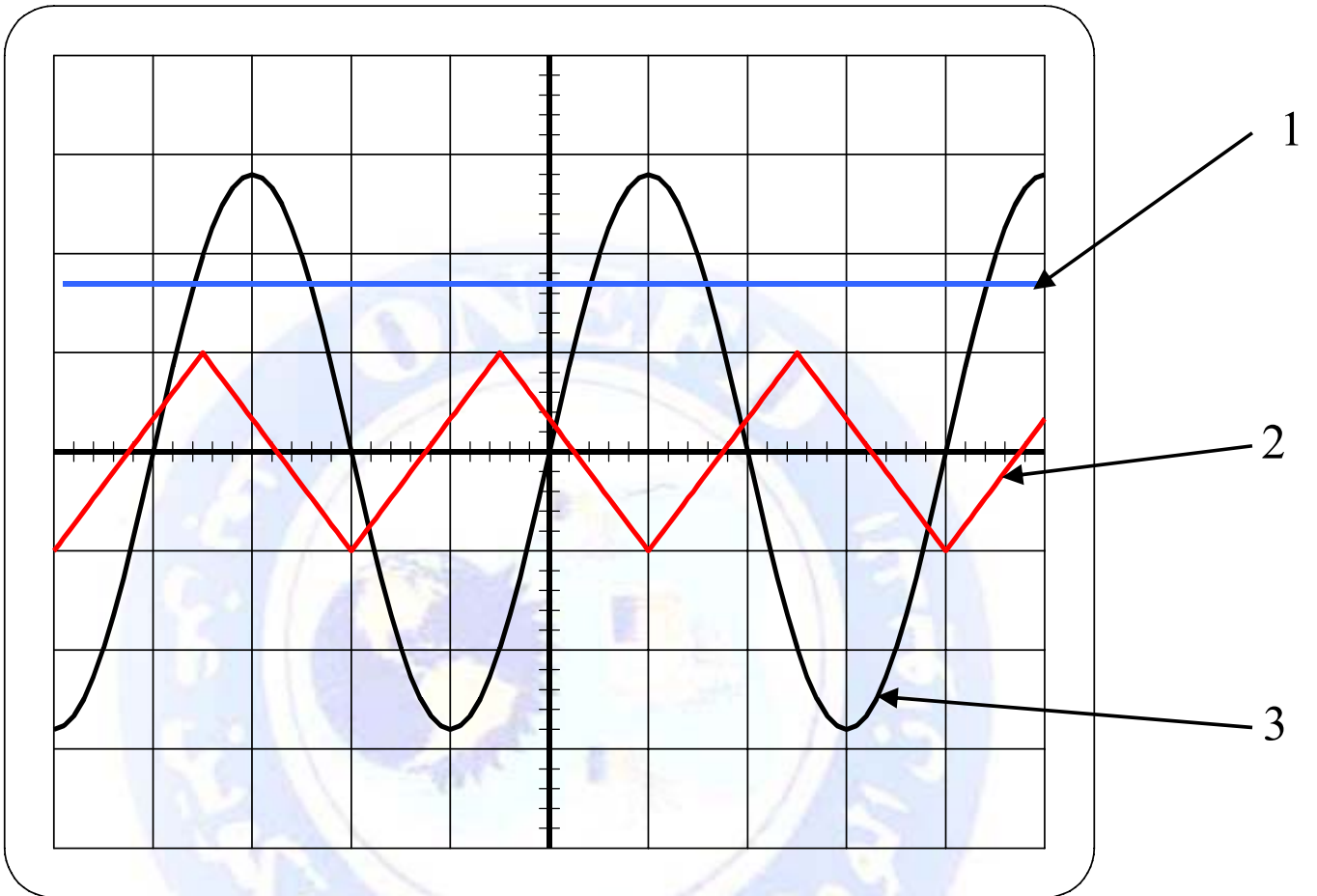
2V/cm
5ms/cm

:4

:

2 V/cm

2ms/cm



/1

/2

/3

. 100 Ω

1

/1

$$T = \frac{1}{f}$$

:

$$T = \frac{1}{50} = 0,02 \text{ s}$$

$$T = 0,02 \text{ s}$$

:

$$T = \frac{1}{60} = 0,017 \text{ s}$$

$$T = 0,017 \text{ s}$$

$$T = 0,02 \text{ s} \quad /2$$

:

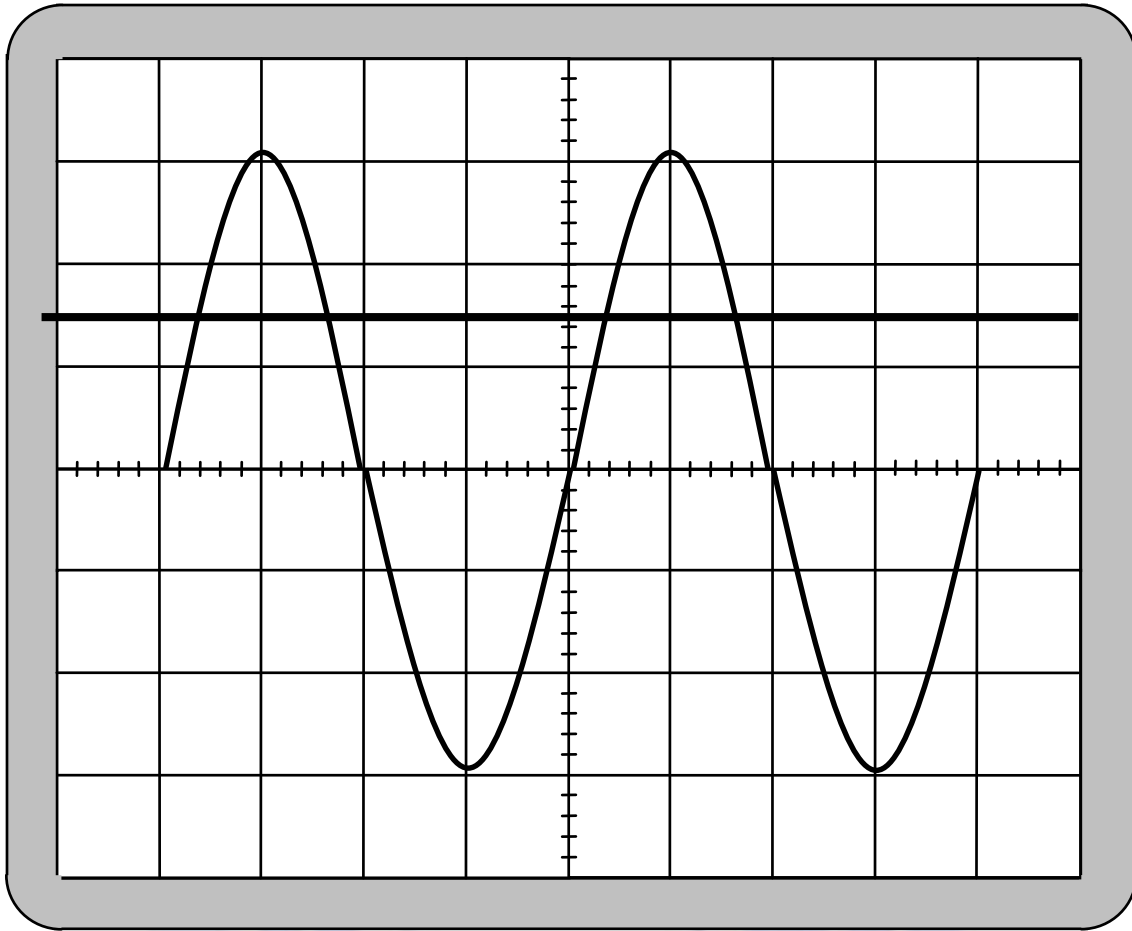
$$\frac{T}{2} = \frac{0,02}{2} = 0,01 \text{ s}$$

2

/1

3 V 1,5 cm

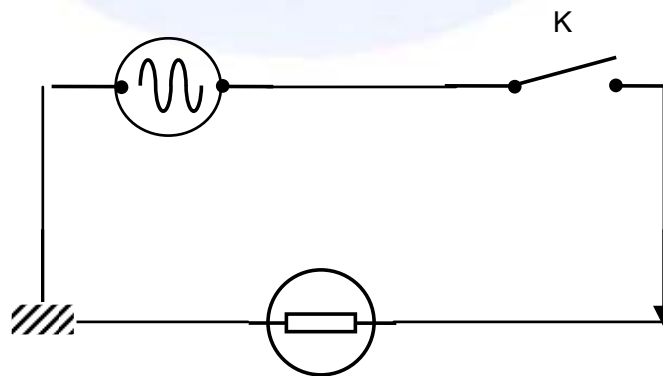
T \longrightarrow 4 cm :



3 :

/1

2 / :



/3

_____ :-

$$T = 8 \times 5 \text{ ms} = 40 \text{ ms}$$

$$f = \frac{1}{40 \times 10^{-3}} = 25 \text{ Hz}$$

$$f = 25 \text{ Hz}$$

$$U_{\text{eff}} = \frac{U_{\text{max}}}{\sqrt{2}}$$

$$U_{\text{eff}} = \frac{6}{\sqrt{2}} = 4,24 \text{ V}$$

$$U_{\text{eff}} = 4,24 \text{ V}$$

_____ :4

_____ /1

1

3

_____ /2

$$U = 1,7 \times 2 = 3,4 \text{ V}$$

$$U = 3,4 \text{ V}$$

/3

_____ :-

$$U_{\text{MAX}} = 2,8 \times 2 = 5,6 \text{ V}$$

$$U_{\text{Max}} = 5,6 \text{ V}$$

_____ :-

$$U_{\text{eff}} = \frac{U_{\text{Max}}}{\sqrt{2}}$$

$$U_{\text{eff}} = \frac{5,6}{\sqrt{2}} = 3,96V$$

$$U_{\text{eff}} = 3,96V$$

- _____ :

:

$$R = \frac{U_{\text{eff}} \cdot \sqrt{2}}{I}$$

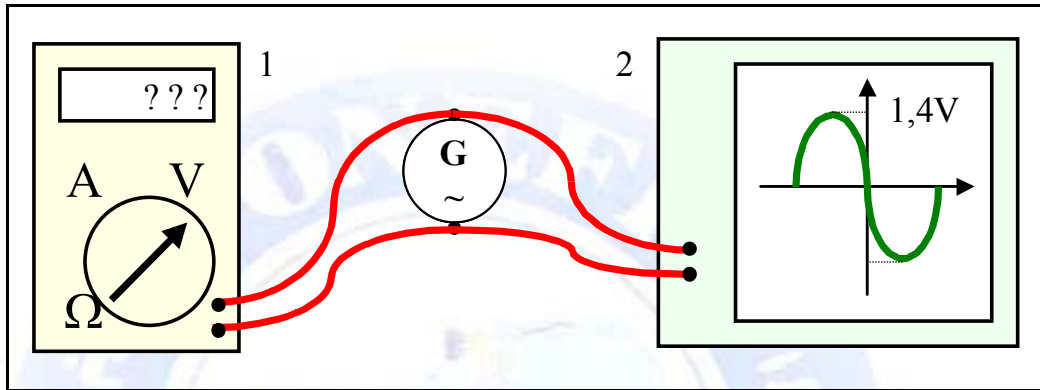
$$I = \frac{U_{\text{eff}} \sqrt{2}}{R}$$

$$I = \frac{5,6}{100} = 56mA$$

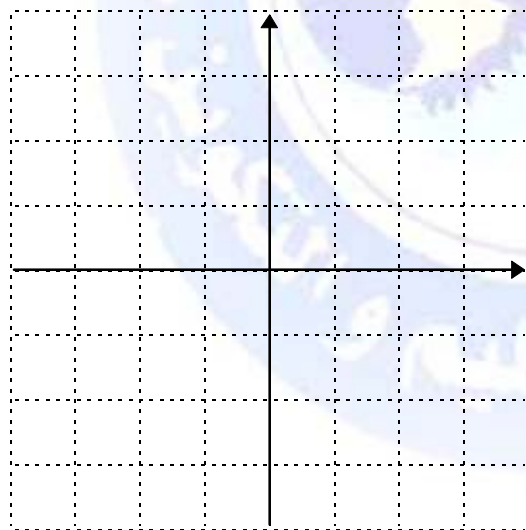
$$I = 56mA$$

:1

1 /1
1 /2



:2



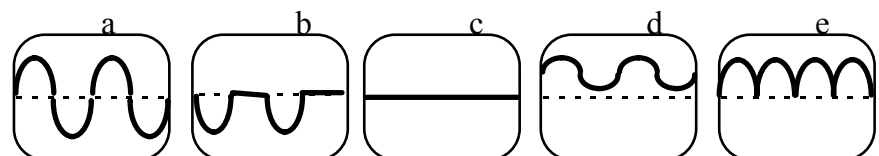
50 Hz
12 V

/1

/3

/4

:3



	a	b	c	d	e

:4

24 V ~ 50 Hz .

/1

/2

/3

U = f(t)
1 cm → 5 ms ; 1 cm → 10V

