

$$\text{gain: } \frac{V_{out}}{V_{in}} = \frac{11V}{1V} = 11$$

$$\Delta t_d = 6.75 \text{ ms} - 6.25 \text{ ms}$$

$$\Rightarrow \Delta t_d = 0.5 \text{ ms} \quad \leftarrow \text{ } \phi$$

$$\phi = \frac{\Delta t \times 360}{1}$$

$$\phi_{out} = 180^\circ$$

St delay

$$6.75 - 6.25 = 0.5$$

1

0.5

$$A = \frac{1}{1} \approx 1$$

$$A = \frac{11}{1} \approx 11$$

$$V_{in} = ?$$

$$\Delta C = ?$$

$$= \frac{5.12 \text{ V}}{1.0 \text{ kV}} = 4.92$$

$$V_{gain} =$$

b)

$$V_{gain} = \frac{11.4}{1.2} = \dots$$

$$v = v_m \cos(\omega t + \phi)$$

$$f = \frac{1}{T} \rightarrow \omega = 2\pi f = \frac{2\pi}{T}$$

$$(4) v_{in} = A_{in} \sin(2\pi f t + \phi_{in}) \rightarrow !$$

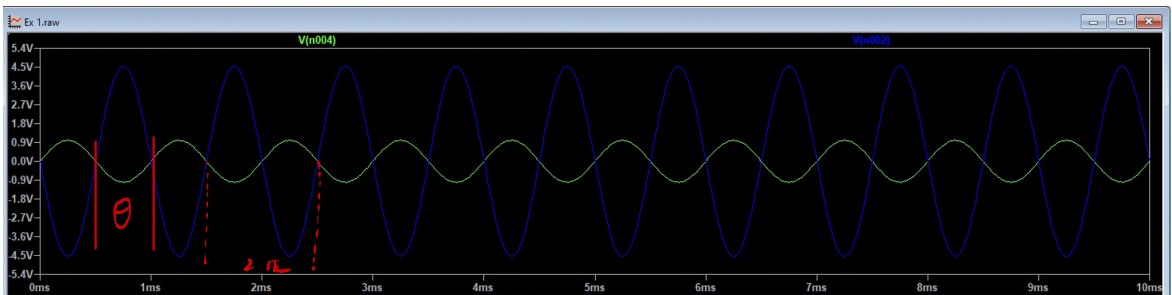
$$(1) v_{out} = A_{out} \sin(2\pi f t + \phi_{out}) \rightarrow ?$$

$$\Delta \phi = \phi_{out} - \phi_{in}$$

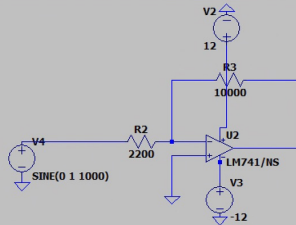
$$\Delta \theta = \frac{\Delta x}{2\pi} \times 2\pi$$

$$v_{in} = 1 \sin(2\pi \times 0.5 + \phi_{in})$$

$$v_{out} = 4.5 \sin(2\pi \times 0.5 + \phi_{out})$$



$$360 \times \frac{0.5}{1} = 180^\circ$$



.include C:\LM741.MOD
.tran 10m

Activate Windows
Go to Settings to activate Windows.

565 : 501

$$V_{in} = 1.04 \text{ V}$$

$$V_{out} = 2.80 \text{ V} \times 2 \rightarrow 5.60 \text{ V}$$

$$\rightarrow \text{gain} = \frac{5.60}{1.04} = 5.38 \text{ V}$$

$$V_{out} = 5.5 \text{ V}$$

$$V_{in} = 1 \text{ V}$$

$$\text{gain} = \frac{5.5}{1} = 5.5$$

Section 2:

$$V_{in} = 1 \text{ V}$$

$$V_{out} = 11 \text{ V} \rightarrow \text{gain} = 11 \text{ V}$$

$$\text{Measure} : \frac{11.20}{1.04} = 10.76 \text{ V}$$

$$V_{in} = 1.04$$

$$V_{out} = 2.28 \times 2 = 4.56$$

$$A_v = \dots$$

$$B_t =$$