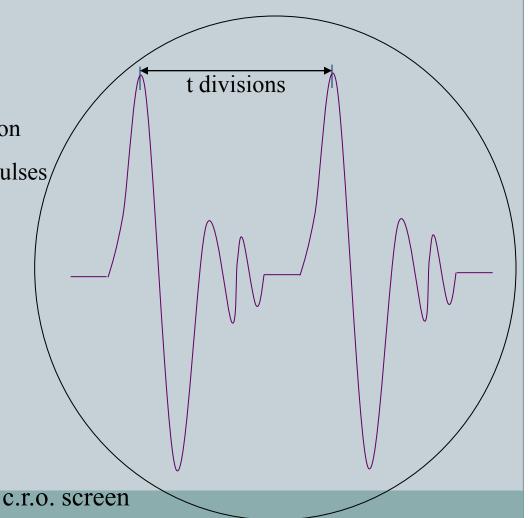
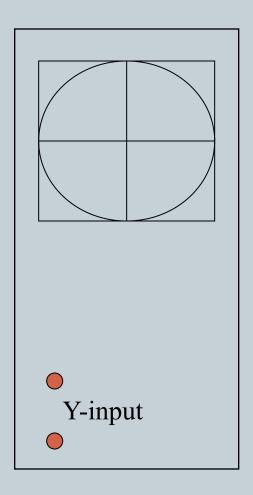
Measuring Short Time Intervals

If the time-base is 10 ms/division and if the separation between pulses/ is t divisions then time interval is 10t ms



Measuring Short Time Intervals

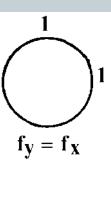


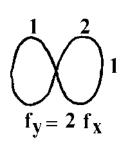
Lissajous' Figures

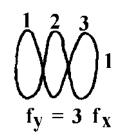
- Lissajous' figure can be displayed by applying two a.c. signals simultaneously to the X-plates and Y-plates of an oscilloscope.
- As the frequency, amplitude and phase difference are altered, different patterns are seen on the screen of the CRO.

Lissajous' Figures

Same amplitude but different frequencies

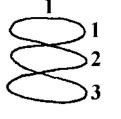






$$\underbrace{\int_{1}^{1}}_{1} 1$$

$$\underbrace{f_{y} = \frac{1}{2}}_{1} f_{x}$$



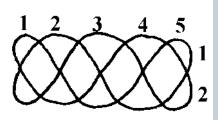
$$f_y = 1/3 f_x$$

$$\bigcup_{2}^{1} \frac{2}{3} \frac{3}{2}$$

$$f_y = 3/2 f_x$$

$$\begin{bmatrix} 1 & 2 \\ 2 & 2 \\ 3 & 3 \end{bmatrix}$$

$$f_y = 2/3 f_X$$



$$f_y = 5/2 f_x$$