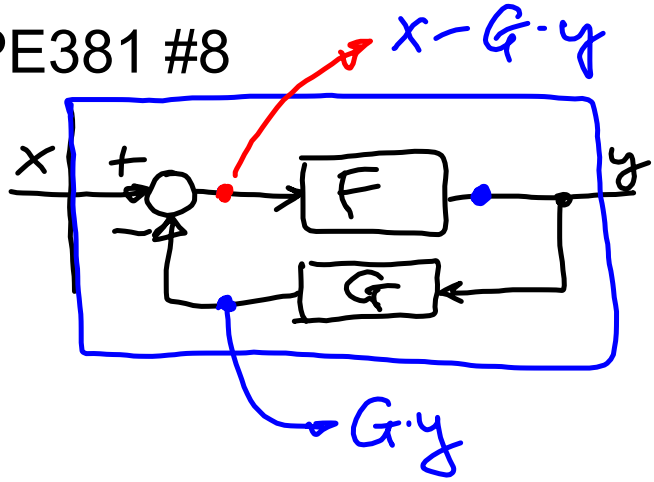
CPE381 #8



$\frac{y}{x}$?

$F(x - Gy) = y \Rightarrow F(x) - F(G(y)) = y$

$F(x)$

$(1+FG)\cdot y = F\cdot x$

$$\frac{y}{x} = \frac{F}{1+FG}$$

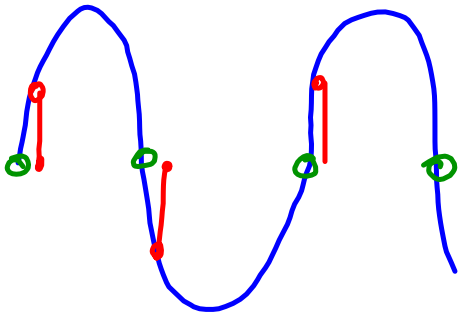
64 kB/s 8000 samples/s · 1 B / sample · 8 b / sample = 64 kb/s

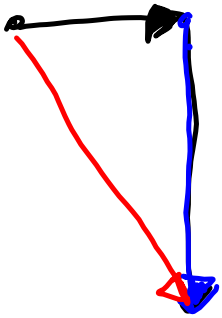
ll

4000 Hz

kb/s = 1000 b/s

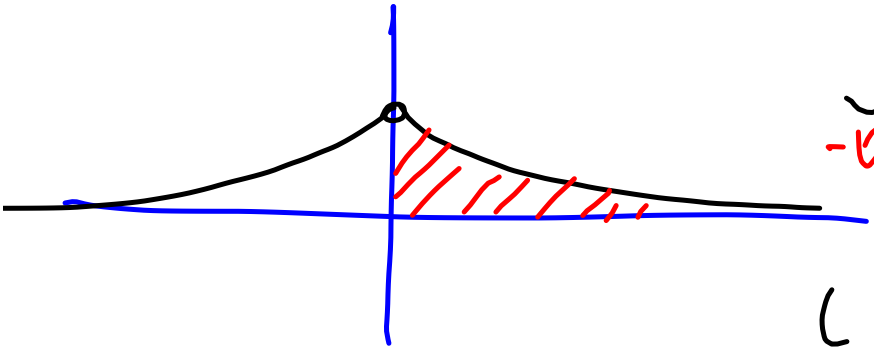
$\frac{kB}{s} = 1024 \frac{B}{s}$





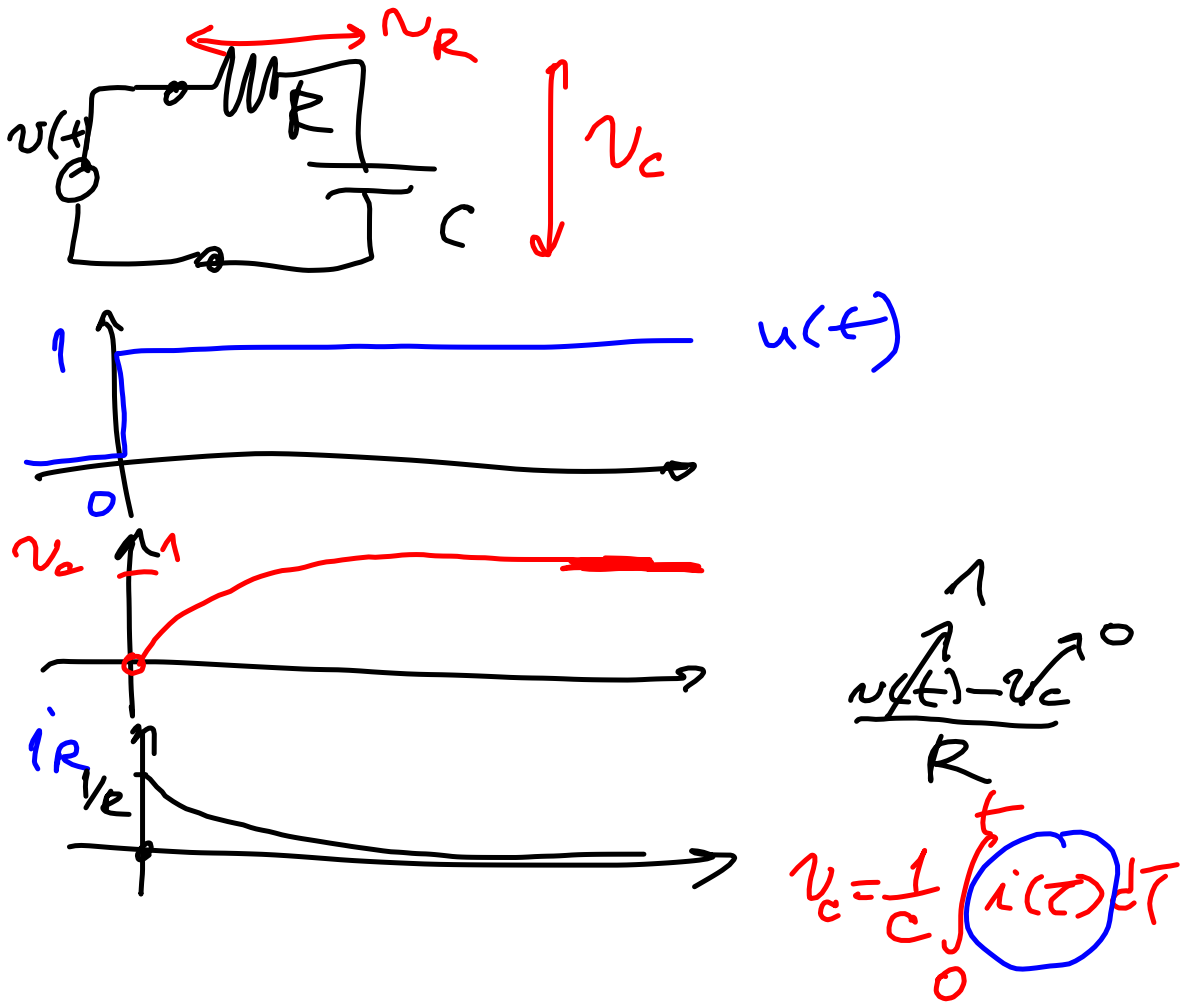
$\sqrt{(\ )^2 + (\ )^2}$

$\varphi = \varphi_1 + \varphi_2$



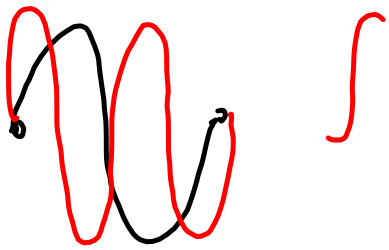
$\int_{-\infty}^{\infty}$ $= 2 \cdot \int_{0}^{\infty}(\ )$

$(\ )\int_{-\infty}^{\infty}$ $(\ )\int_{0}^{\infty}$


v_R
R
v(t)
C
v_c
1
u(t)
0
v_o
1
i_R
V_R
1
$\frac{v(t)-v_c}{R}$
0
$v_c = \frac{1}{C}\int_0^t i(\tau)\,d\tau$

$1 + \sin(2 \cdot \Omega \ldots)$

$\int_0^T$



$f_1 = 10\,Hz$

$f_2 = 6\,Hz$

$f_1 + f_2$?

period ?

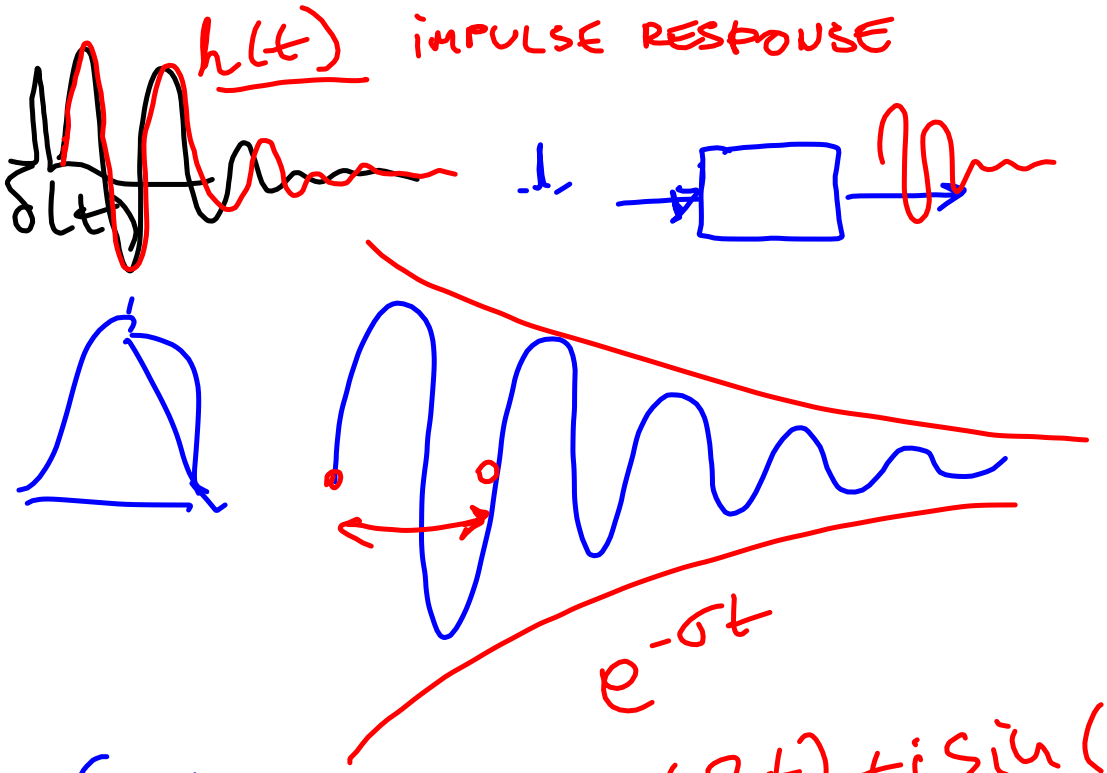
$T_1 = \frac{1}{10}\,s$

$T_2 = \frac{1}{6}\,s$

$\frac{T_1}{T_2} = \frac{\frac{1}{10}}{\frac{1}{6}} = \frac{6}{10} = \frac{3}{5}$

$\frac{10}{5} \cdot T_1 = \frac{6}{3} T_2 = T_0 = 0.5\,s$

$f_0 = 2\,Hz$



$$\int e^{st} = \frac{e^{st}}{s} \quad \cos(\Omega t) + j\sin(\Omega t)$$

e^{st} $s = \sigma + j\omega$ $e^{\sigma + j\Omega t}$

$e^{\sigma} \cdot e^{j\Omega t}$

$e^{\sigma}(\cos \Omega t + j \sin \Omega t)$