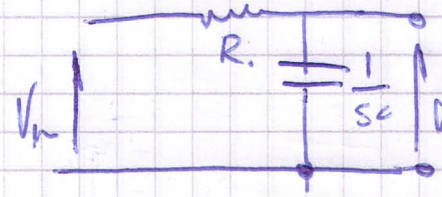
g 2) RC pasabajos $f_0 = 16\,KHz$ N



$$\frac{V_{out}}{\frac{1}{sC}} = \frac{V_{IN}}{\frac{1}{sC} + R.}$$

$$\frac{V_{IN}}{V_{out}} = \frac{\frac{1}{sC} + R}{\frac{1}{sC}}$$

$$A_V = \frac{\frac{1}{sC}}{\frac{1 + RSC}{sC}} = \frac{1}{1 + RSC.}$$

$1 + RSC = 0$

$RSC = -1$

$S = \frac{1}{RC}$

$\Rightarrow \omega_0 = \frac{1}{RC}$

$2\pi f = \omega_0$

$$\boxed{f_0 = \frac{1}{2\pi RC}}$$

$$\frac{1}{2\pi RC} = 16KHz \cdot N \longrightarrow N = 4.$$

$$RC = \frac{1}{2\pi 64KHz} \Rightarrow$$

$R = 1K$

$C = 2.5\,nf$

$$h(S) = \frac{1}{1 + RSC}$$

$$RC = \frac{1}{2\pi 64KHz} \qquad f_0 = \frac{1}{2\pi RC.}$$

NOTA