Opg 4.8

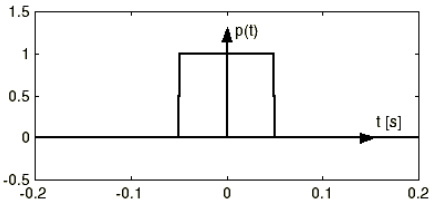
$$y(t) = \sum_{-\infty}^{\infty} y[n] \cdot p(t - nT_s) \qquad T_s = 0.1[s]$$

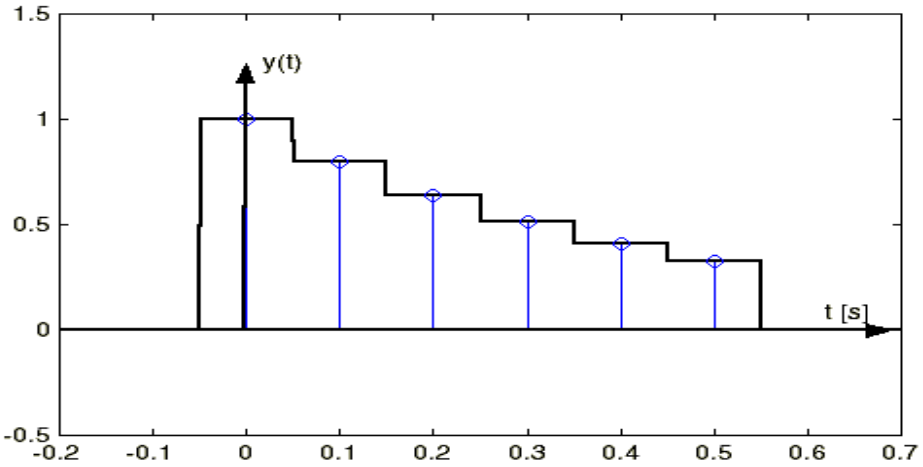
$$y[n] = \begin{cases} 0.8^n & 0 \le n \le 5 \\ 0 & ellers \end{cases}$$

n	0	1	2	3	4	5
y[n]	1	0.8	0.64	0.512	0.4096	0.32762

a)

$$p(t) = \begin{cases} 1 & -0.05 \le n \le 0.05 \\ 0 & ellers \end{cases}$$

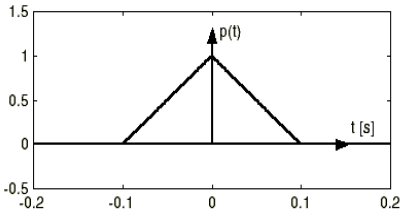




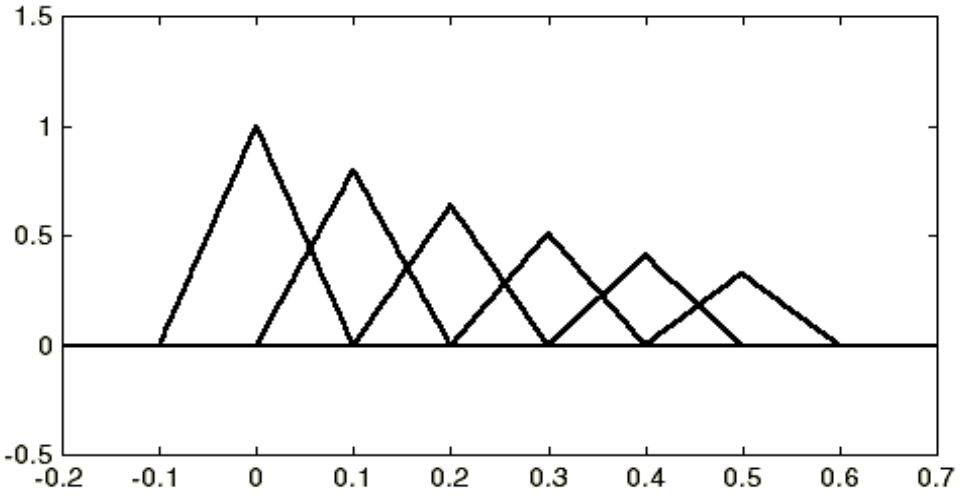
Den ideelle rekonstruktion er $y(t) = 0.8^n$.

b)

$$p(t) = \begin{cases} 1 - 10|t| & -0.1 \le n \le 0.1 \\ 0 & ellers \end{cases}$$



$$y(t) = y[0]\cdot p(t) + y[1]\cdot p(t-T_s) + y[2]\cdot p(t-2T_s) + y[3]\cdot p(t-3T_s)$$
$$= y[4]\cdot p(t-4T_s) + y[5]\cdot p(t-5T_s)$$



Det ses, at for et givet t, er der (i det indre af figuren) altid 2 pulser, der overlapper.