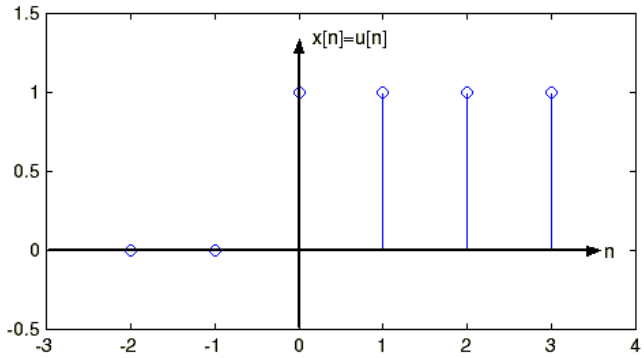
Opg 5.1

$$y[n]=\frac{1}{L}\sum_{k=0}^{L-1}x[n-k]$$ running average/glidende middelværdi

$$x[n]=u[n]=\begin{cases}0 & n<0\\ 1 & n\geq 0\end{cases} \quad \text{for}$$

a)

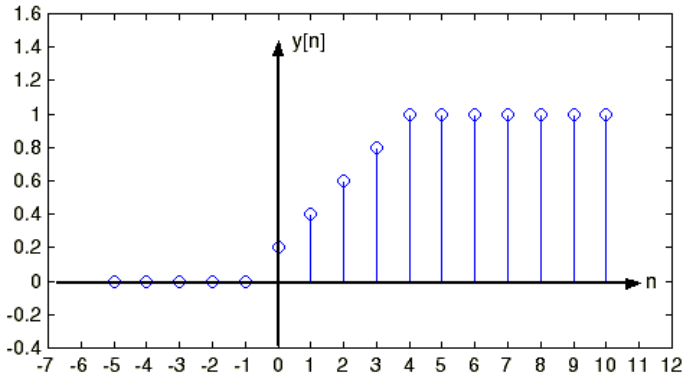


b) Givet: $L=5$, dvs. $M=4$.

$$y[n]=\frac{1}{5}\sum_{k=0}^{4}x[n-k] \qquad -5\leq n\leq 10$$

n	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
x[n]	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
y[n]	0	0	0	0	0	0.2	0.4	0.6	0.8	1	1	1	1	1	1	1

c)



d)

$$x[n]=\begin{cases}\dfrac{n+1}{L} & n\leq 0<L\\ 1 & L\leq n<\infty\end{cases} \quad \text{for}$$