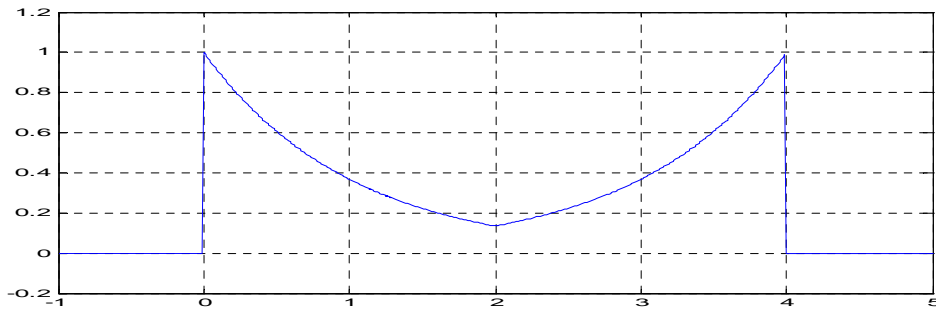
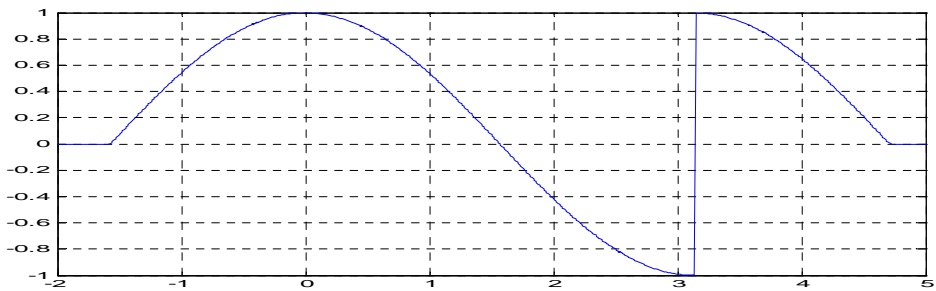


Svar till övning 1:

1a.



1b.



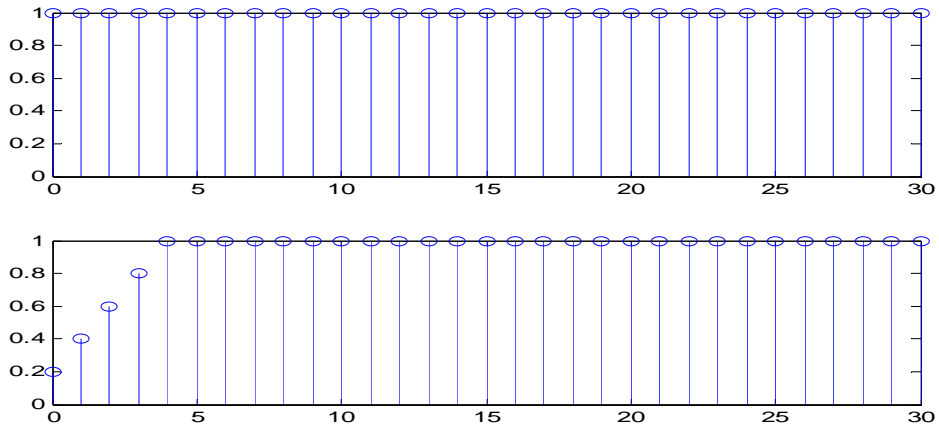
2.

- a) Periodisk, period=10 s.
- b) Periodisk, period=2 s.
- c) Ej periodisk.
- d) Ej periodisk.
- e) Periodisk, period=3.
- f) Periodisk, period=2.

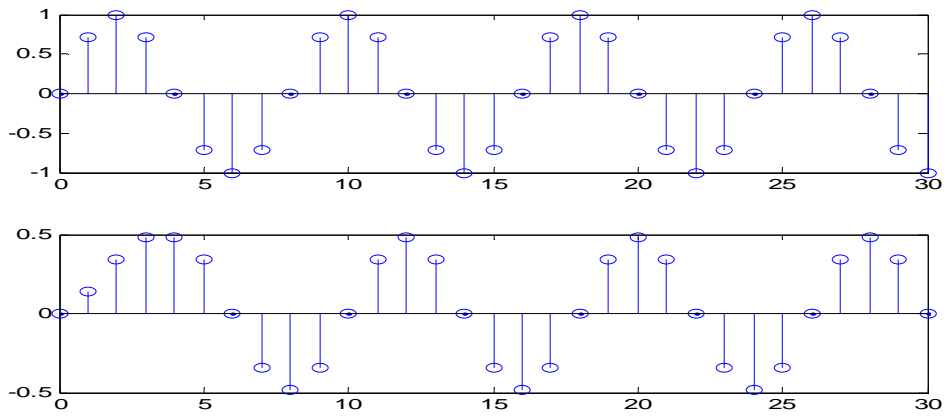
3.

- a) $y(t) = 4(1 - e^{-t})u(t) - 4(1 - e^{-(t-1)})u(t-1)$
- b) $y(t) = 4 * 1.414 \cos(t - 2 - \pi / 4)$
- c) $y(t) = 10(1 - e^{-t})u(t) + 14.14 \cos(t - \pi / 4)$
- d) $y(t) = (2t - 2(1 - e^{-t}))u(t)$

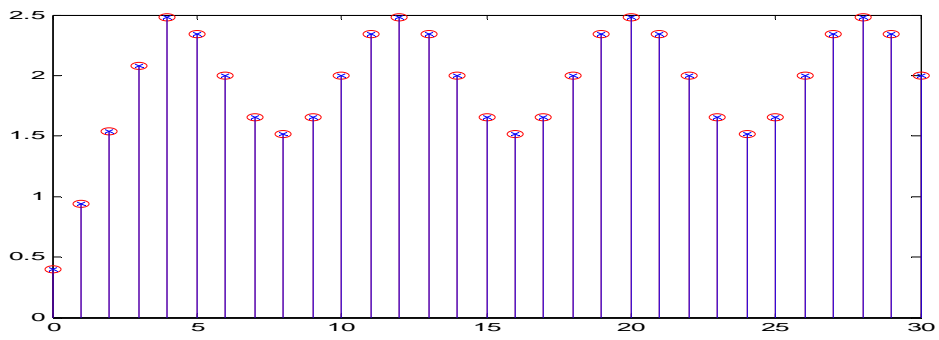
4.
a)



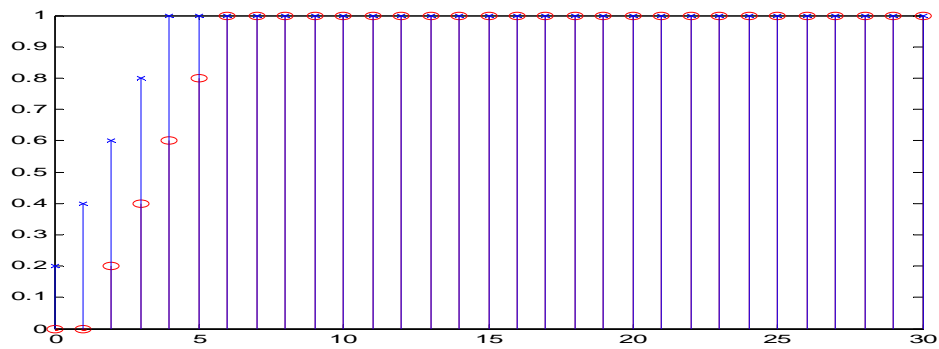
b)



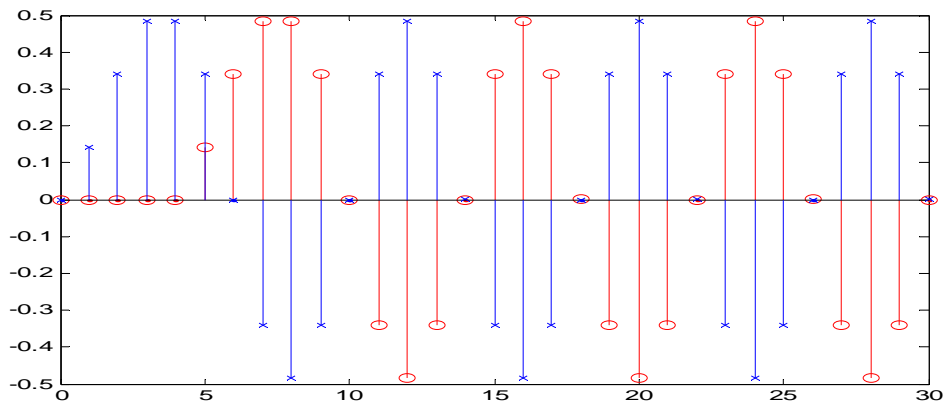
c)



d)



e)



5.

- a) kausalt, har minne, linjärt, tidsinvariant
- b) ej kausalt, "har minne", linjärt, tidsinvariant
- c) kausalt, ej minne, linjärt, ej tidsinvariant
- d) kausalt, ej minne, linjärt, tidsinvariant
- e) kausalt, ej minne, ej linjärt, tidsinvariant
- f) kausalt, ej minne, ej linjärt, tidsinvariant
- g) kausalt, har minne, linjärt, ej tidsinvariant