

第一次作业

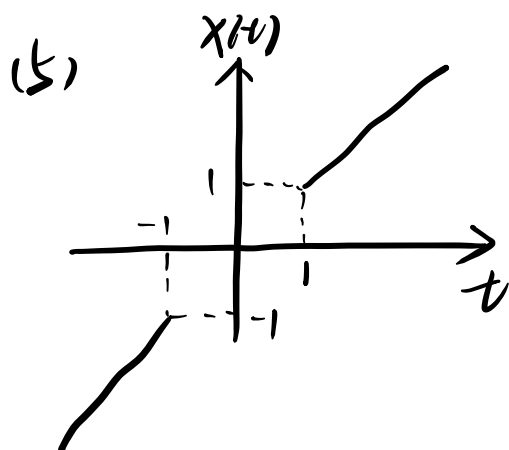
2.1 (5)(6)

2.2 (1)g, d (2)k, m

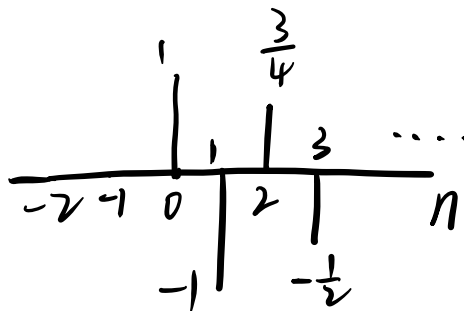
2.3 (c)(d)(e)(g)

2.4 (4)(9)(14)(15)

T2.1

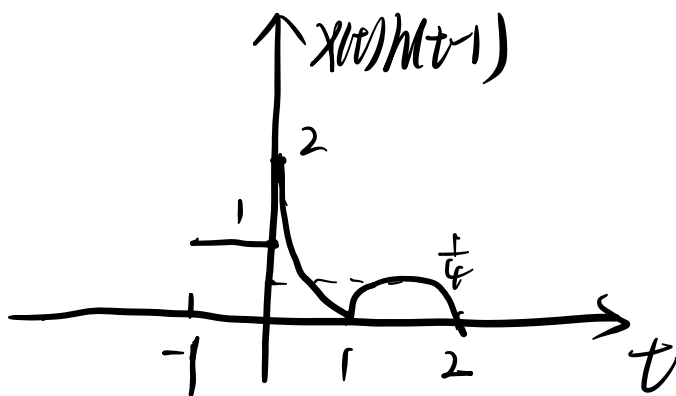


(6)

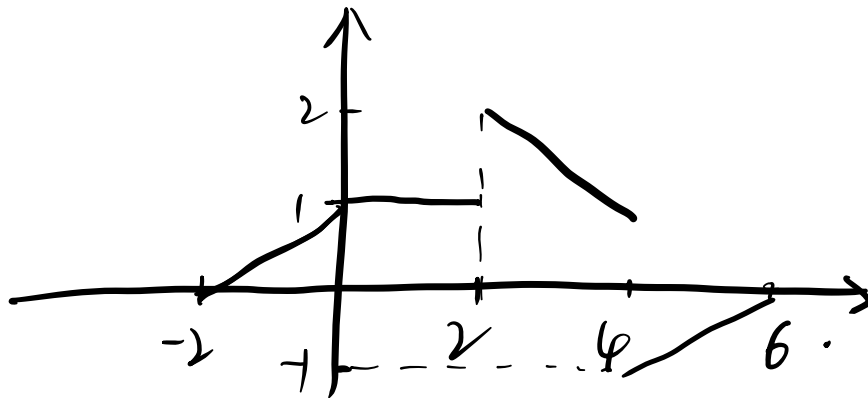


T2.2

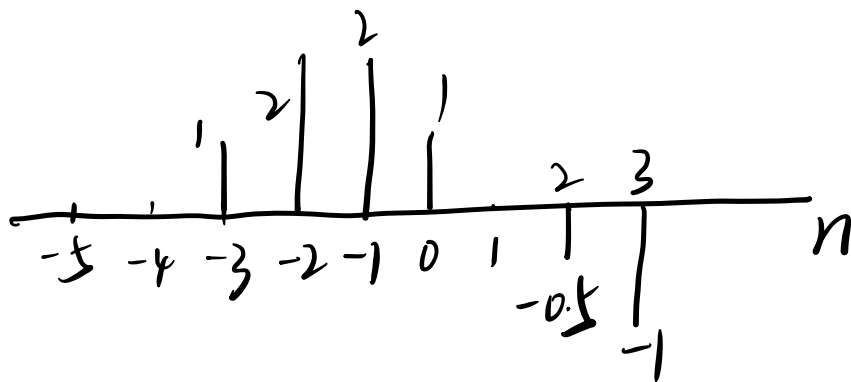
$$1) g: x(t)h(t-1) = \begin{cases} 1 & (-1, 0) \\ (-t+2)(-t+1) & (0, 1) \\ (1-t+1)(t-2) & (1, 2) \\ 0 & \text{others} \end{cases}$$



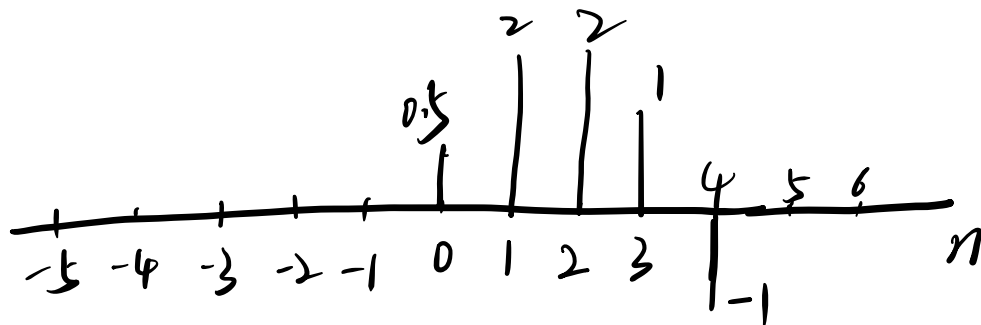
(1) d: $x(\frac{t}{2}-1)$



(2) k: $x[n]h[-n]$



(2) m: $x[2-n]h[n]$



7.3 答案不唯一，注意省略号表示周期信号

$$(c) \quad x(t) = |\sin \pi t| \cdot [u(t) - u(t-2)]$$

$$(d) \quad x(t) = \sin \pi t \sum_{i=0}^{+\infty} [u(t-2i) - u(t-2i-1)]$$

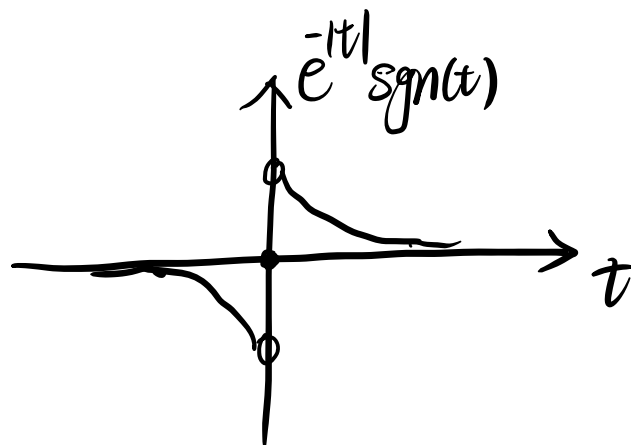
(注意图右方的周期性)

$$(e) \quad x[n] = u[n+2] - u[n-5] + u[n+1] - u[n-4] \\ + u[n] - u[n-3]$$

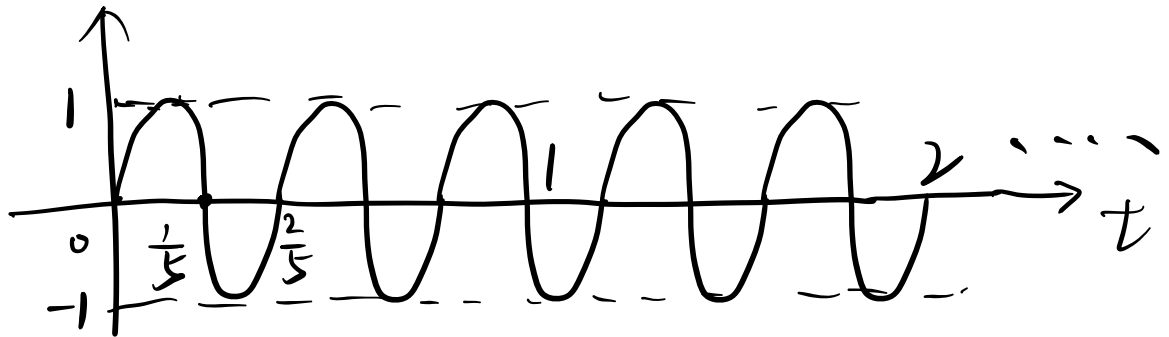
$$(g) \quad \checkmark \quad x[n] = \sum_{k=-\infty}^{+\infty} \delta[n+2-6k]$$

7.4

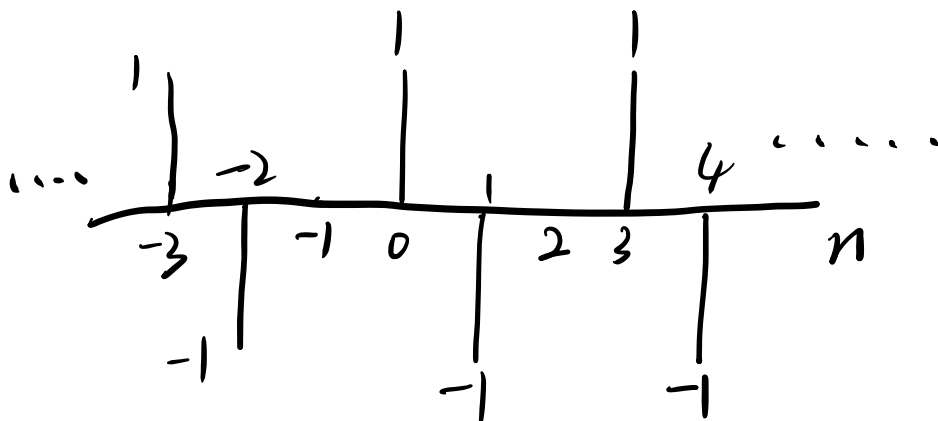
(4)



$$(9) \sin(5\pi t) [u(t) - u(t-2)]$$



$$(14) \sum_{k=-\infty}^{+\infty} (\delta[n-3k] - \delta[n-1-3k])$$



$$(15) \sum_{k=0}^2 (n-8k) \{u[n+3-8k] - u[n-4-8k]\}$$

