

$$\begin{aligned} \text{풀이) } y[-2] &= h[-2] * x[-2] = \sum_{k=-\infty}^{\infty} x[k] h[-2-k] \\ &= \underbrace{x[-2]}_2 \underbrace{h[0]}_4 + \underbrace{x[-1]}_3 \underbrace{h[-1]}_3 + \underbrace{x[0]}_3 \underbrace{h[-2]}_2 + \dots \\ &\quad \underbrace{x[1]}_3 \underbrace{h[-3]}_1 + \dots \\ &= 26 \end{aligned}$$

$$\begin{aligned} y[-1] &= h[-1] * x[-1] = \sum_{k=-\infty}^{\infty} x[k] h[-1-k] \\ &= \underbrace{x[-2]}_2 \underbrace{h[1]}_3 + \underbrace{x[-1]}_3 \underbrace{h[0]}_3 + \underbrace{x[0]}_3 \underbrace{h[-1]}_3 + \dots \\ &\quad \underbrace{x[1]}_3 \underbrace{h[-2]}_2 + \underbrace{x[2]}_3 \underbrace{h[-3]}_1 + \dots \\ &= 36 \end{aligned}$$

$$\begin{aligned} y[0] &= \sum_{k=-\infty}^{\infty} x[k] h[-k] = \underbrace{x[-2]}_2 \underbrace{h[2]}_2 + \underbrace{x[-1]}_3 \underbrace{h[1]}_3 + \underbrace{x[0]}_3 \underbrace{h[0]}_4 + \dots \\ &\quad \underbrace{x[1]}_3 \underbrace{h[-1]}_3 + \underbrace{x[2]}_3 \underbrace{h[-2]}_2 + \underbrace{x[3]}_3 \underbrace{h[-3]}_1 \\ &= 43 \end{aligned}$$

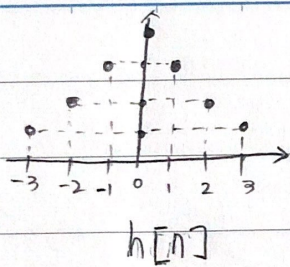
$$\begin{aligned} y[1] &= \sum_{k=-\infty}^{\infty} x[k] h[1-k] = \underbrace{x[-2]}_2 \underbrace{h[3]}_1 + \underbrace{x[-1]}_3 \underbrace{h[2]}_2 + \underbrace{x[0]}_3 \underbrace{h[1]}_3 + \underbrace{x[1]}_3 \underbrace{h[0]}_4 \\ &\quad + \underbrace{x[2]}_3 \underbrace{h[-1]}_3 + \underbrace{x[3]}_3 \underbrace{h[-2]}_2 + \underbrace{x[4]}_3 \underbrace{h[-3]}_1 = 45 \end{aligned}$$

$$\begin{aligned} y[2] &= \sum_{k=-\infty}^{\infty} x[k] h[2-k] = \underbrace{x[-1]}_3 \underbrace{h[3]}_1 + \underbrace{x[0]}_3 \underbrace{h[2]}_2 + \dots + \underbrace{x[4]}_3 \underbrace{h[-2]}_2 \\ &= 45 \end{aligned}$$

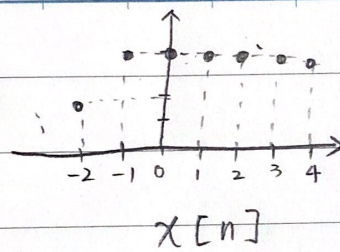
$$\begin{aligned} y[3] &= \sum_{k=-\infty}^{\infty} x[k] h[3-k] = \underbrace{x[0]}_3 \underbrace{h[3]}_1 + \underbrace{x[1]}_3 \underbrace{h[2]}_2 + \dots + \underbrace{x[4]}_3 \underbrace{h[-1]}_3 \\ &= 39 \end{aligned}$$

$$y[4] = \sum_{k=-\infty}^{\infty} x[k] h[4-k] = \underbrace{x[1]}_3 \underbrace{h[3]}_1 + \dots + \underbrace{x[4]}_3 \underbrace{h[0]}_4 = 30$$

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