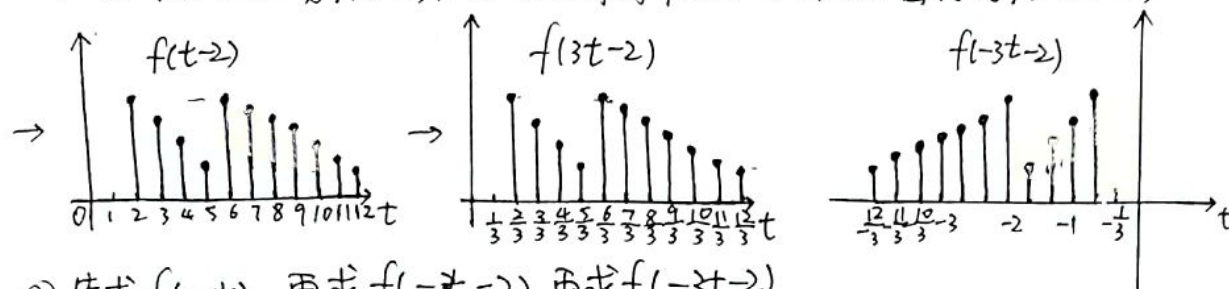
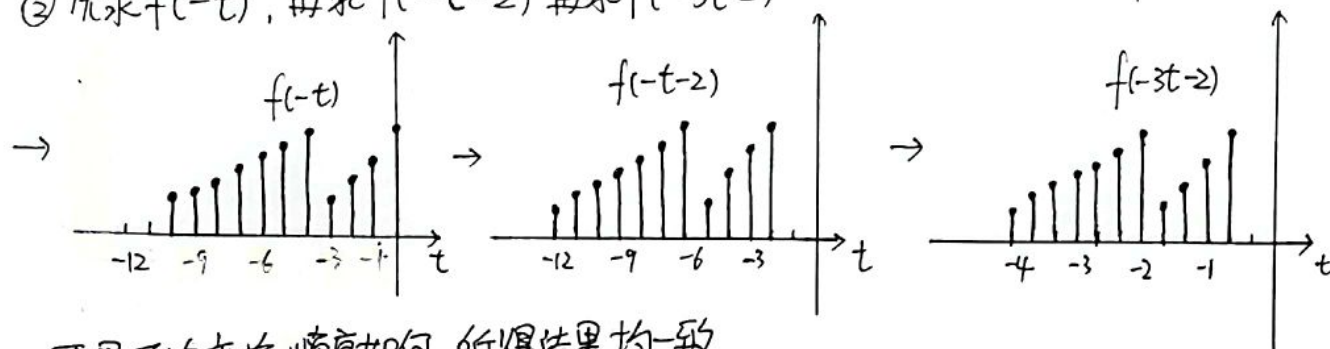


1-4 ① 先移位得 $f(t-2)$, 再尺度倍乘得 $f(3t-2)$, 再反褶得到 $f(-3t-2)$



② 先求 $f(-t)$, 再求 $f(-t-2)$ 再求 $f(-3t-2)$



可见不论变换顺序如何, 所得结果均一致

1-14

$$(2) \int_{-\infty}^{\infty} f(t_0 - t) \delta(t) dt \xrightarrow{\frac{1}{2}\alpha = t_0 - t} \int_{-\infty}^{\infty} f(\alpha) \delta(t_0 - \alpha) d\alpha = \int_{-\infty}^{\infty} f(\alpha) \delta(\alpha - t_0) d\alpha = f(t_0)$$

$$(6) \int_{-\infty}^{\infty} (t + \sin t) \delta(t - \frac{\pi}{6}) dt = (t + \sin t) \Big|_{t=\frac{\pi}{6}} = \frac{1}{2} + \frac{\pi}{6}$$

$$(7) \int_{-\infty}^{\infty} e^{-j\omega t} [\delta(t) - \delta(t - t_0)] dt = e^{-j\omega t} \Big|_{t=0} - e^{-j\omega t} \Big|_{t=t_0} = 1 - e^{-j\omega t_0}$$