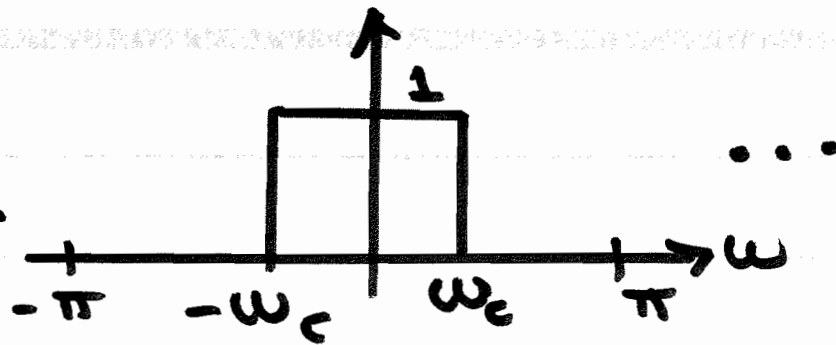


$$\frac{\sin(\omega_c n)}{\pi n}$$

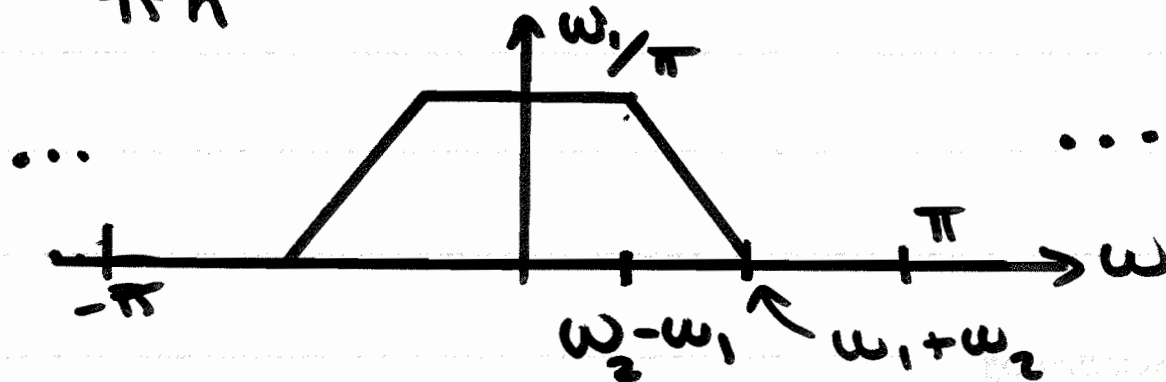
DTFT
← →



$$\frac{\sin(\omega_1 n)}{\pi n}$$

$$\frac{\sin(\omega_2 n)}{\pi n}$$

DTFT
← →



$$\omega_2 > \omega_1$$

$$\omega_1 + \omega_2 < \pi$$

$$0 < \omega_1 < \pi$$

$$0 < \omega_2 < \pi$$

$$\frac{\sin(\omega_1 n)}{\pi n} * \frac{\sin(\omega_2 n)}{\pi n} = \frac{\sin(\omega_1 n)}{\pi n}$$

$$\omega_1 < \omega_2$$

$$0 < \omega_i < \pi$$

$$i = 1, 2$$