

$$[(Q_{15} * Q_{15}) \gg 15] \rightarrow Q_{15}$$

$$H(z) = \frac{1}{1 - az^{-1}}$$

↓ sampled - data domain

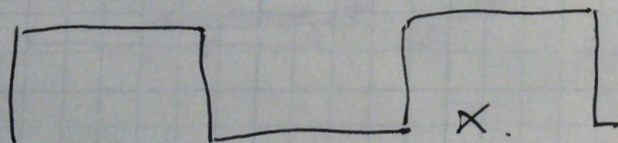
$$\frac{Y(z)}{X(z)} = \frac{1}{1 - az^{-1}}$$

$$Y(z) \cdot (1 - az^{-1}) = X(z)$$

$$y(n) - ay(n-1) = x(n)$$

$$y(n) = x(n) + \underbrace{a}_{Q(a)} y(n-1)$$

↓
Q(a)



$$X(z) \rightarrow \boxed{H(z)} \rightarrow Y(z)$$

