

Example 2.4

$$\text{Q. } y(k) = \sum_{h=0}^k x(h)$$

$$Y(z) ?$$

$$\text{Solution } y(k) = y(k-1) + x(k)$$

$$Y(z) = z^{-1} Y(z) + X(z)$$

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