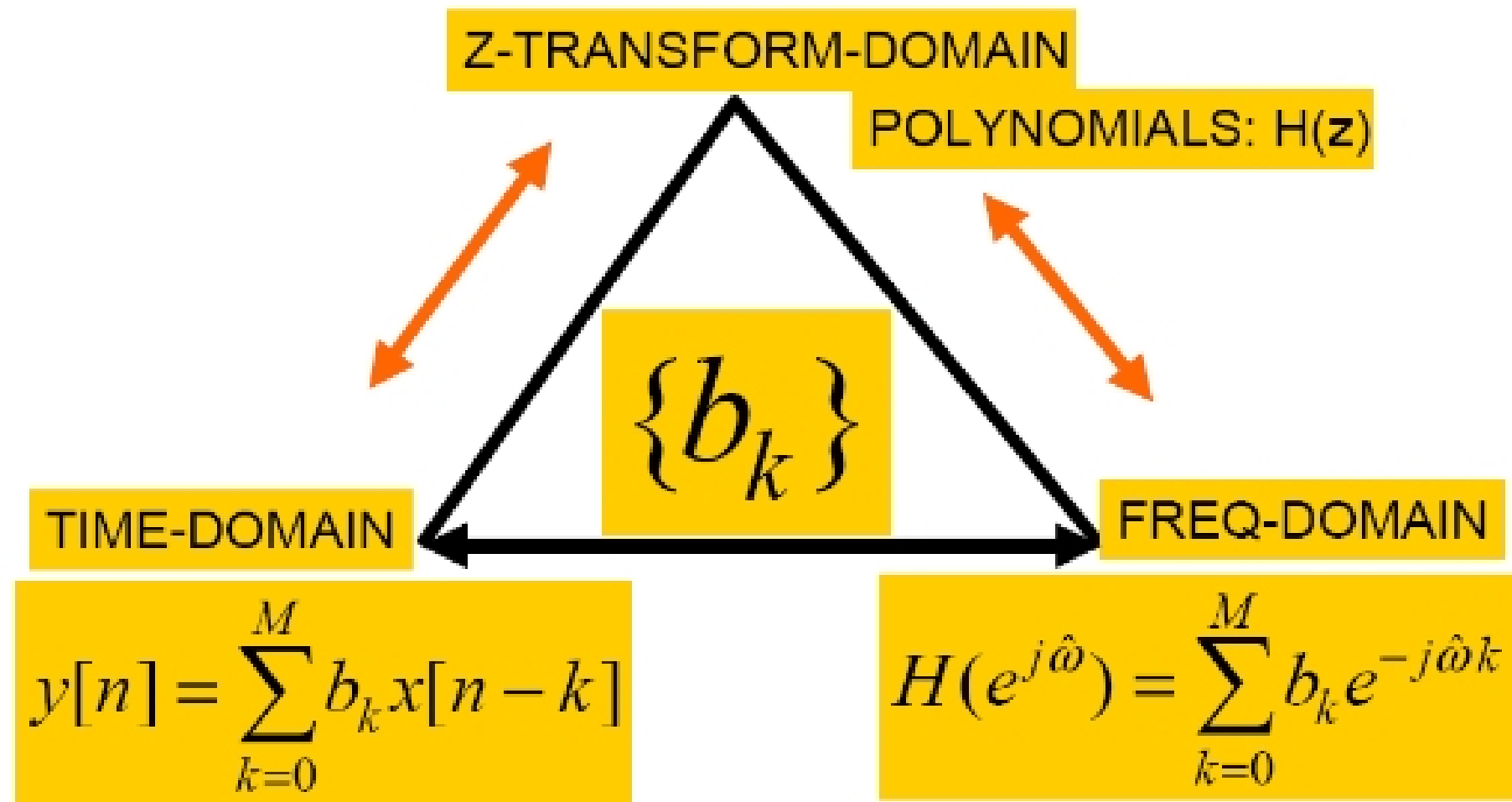


IIR Filters

- Objectives
 - IIR Filter Time-Domain Response
 - System Function of an IIR Filter
 - Poles and Zeros
 - Three Domains
- Reading Assignments
 - Chapter 8
 - Prepare: Chapter 9

TWO (no, THREE) DOMAINS



LOGICAL THREAD

- FIND the IMPULSE RESPONSE, $h[n]$
 - INFINITELY LONG
 - IIR Filters

$$H(z) = \sum_{n=0}^{\infty} h[n] z^{-n}$$

- EXPLOIT THREE DOMAINS:
 - Show Relationship for IIR:

$$h[n] \leftrightarrow H(z) \leftrightarrow H(e^{j\hat{\omega}})$$