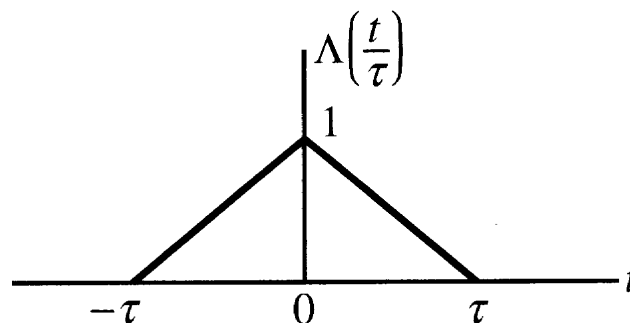


一、 Explain the following terms.

- (1) AWGN (additive white Gaussian noise)
- (2) Linear time-invariant system
- (3) Channel capacity
- (4) Binary symmetric channel
- (5) ISI (intersymbol interference)

二、 A triangular signal is defined as follow; please find its Fourier transform.



三、 What are the differences between “coherent” and “incoherent” communication.

四、 Please compare the following digital modulation schemes : ASK (amplitude shift keying), PSK (phase shift keying), FSK (frequency shift keying)

五、 Please explain the principles of matched filter.