

Signals

Assig. 2

Soln

1. evaluate P_{∞} and E_{∞}

1) $P_{\infty} = 0$ $E_{\infty} = \frac{1}{4}$

2) $P_{\infty} = \frac{1}{2}$ $E_{\infty} = \infty$

Question 2:

1) $P_{\infty} = 0$ $E_{\infty} = \frac{4}{3}$

2) $P_{\infty} = \frac{1}{2}$ $E_{\infty} = \infty$

Question 3:

1) linear, stable, has memory, time variant, non-causal

2) linear, stable, has memory, time variant, non-causal

3) time invariant, linear, causal, memoryless,
~~is~~ unstable

Question 4:

1) Time invariant, causal, stable, linear, has memory

2) Memoryless, causal, nonlinear, time variant,
unstable3) linear, stable, has memory, non-causal
time variant

Question 5)

$$x(t) = x_1(t) + x_1(t+1)$$

$$y(t) = y_1(t) + y_1(t+1)$$

