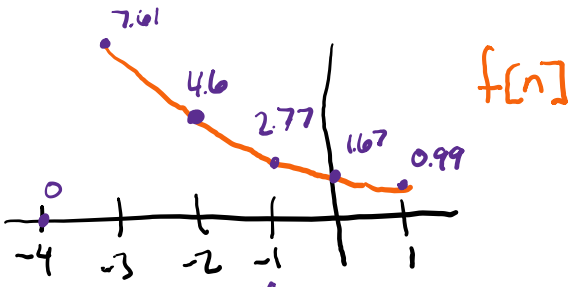
Homework 3

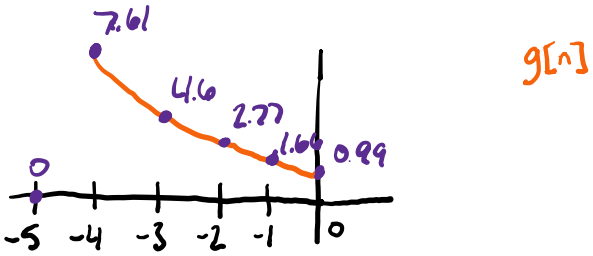
Question 3.1

a)

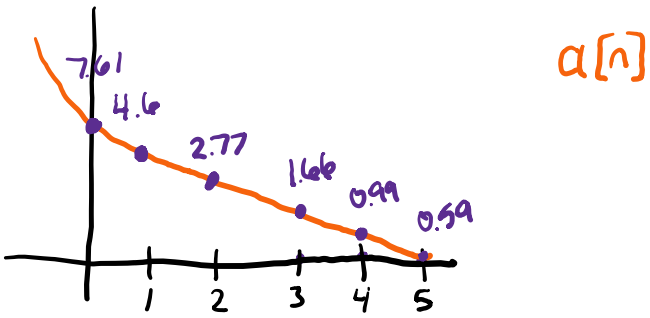


b)

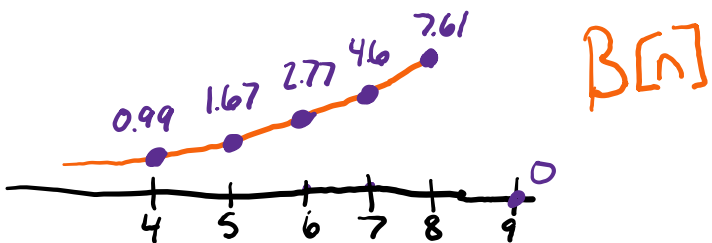
c)



d)



e)



Question 3.2

a)

n	x[n]
0	1.80
1	-0.90
2	-0.90
3	1.80
4	-0.90
5	-0.90

b)

n	g[n]
0	1.80
1	1.69
2	1.38
3	0.90
4	0.31
5	-0.31

c)

n	a[n]
0	0.90
1	1.56
2	1.80
3	1.56
4	0.90
5	0.00

d)

n	y[n]
0	1.80
1	1.56
2	1.33
3	1.11
4	0.90
5	0.70

Question 3.3

a) Linear, Time-Invariant

b) Linear, Time-Variant

c) Non-Linear, Time-Variant

d) Linear, Time-Invariant

e) Non-Linear, Time-Variant

Question 3.4

a) Causal, IIR

b) Non-Causal, IIR

c) Non-Causal, FIR

d) Causal, FIR

e) Causal, IIR