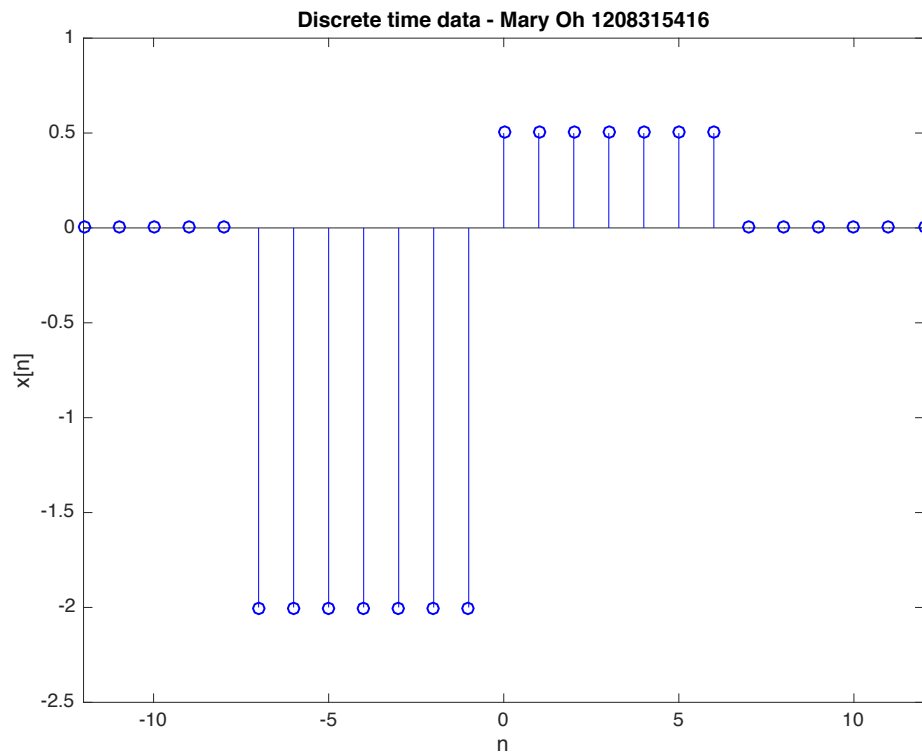
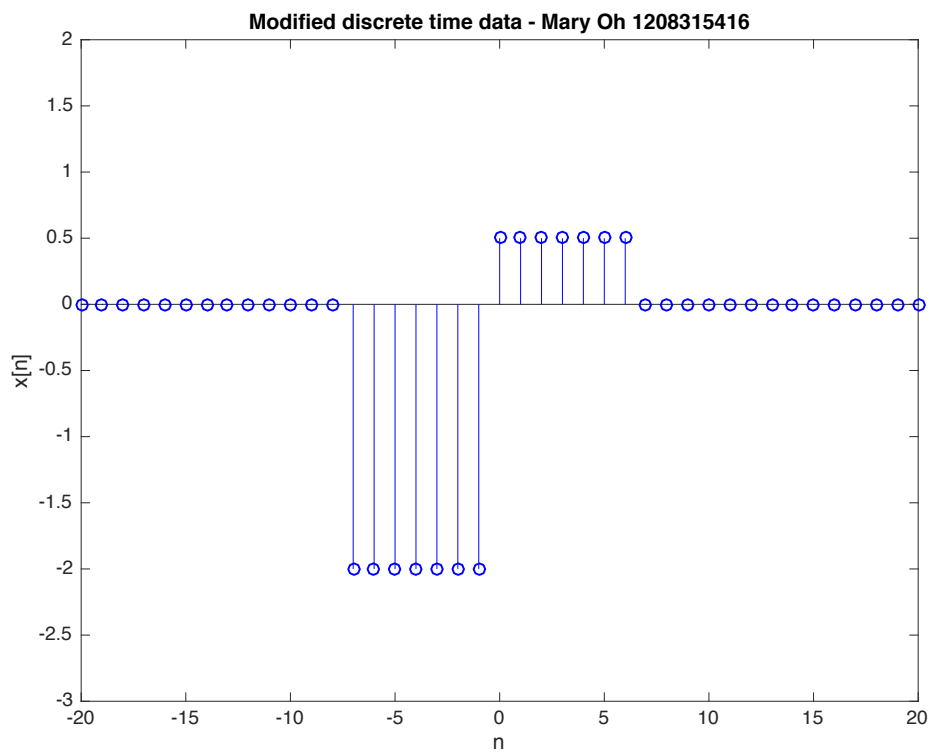


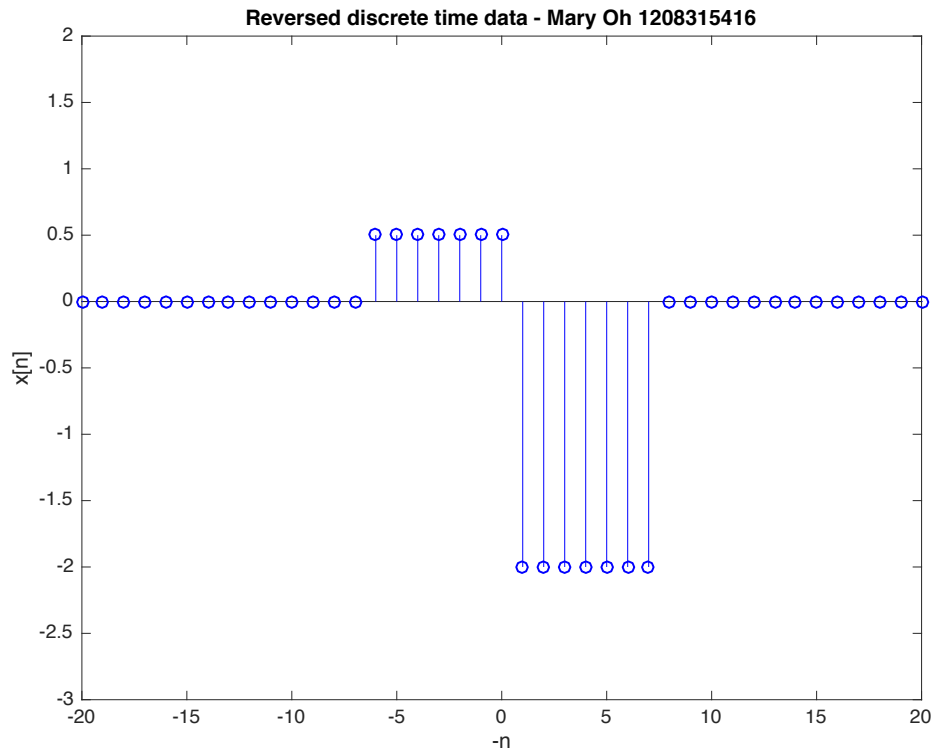
(1.a)



(1.b)

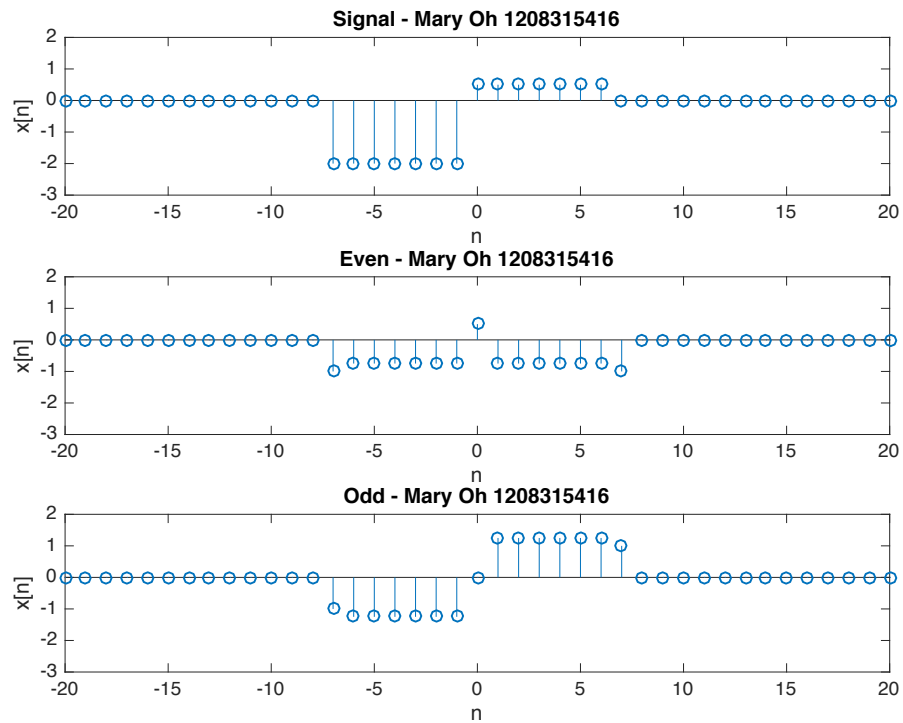


(1.c)

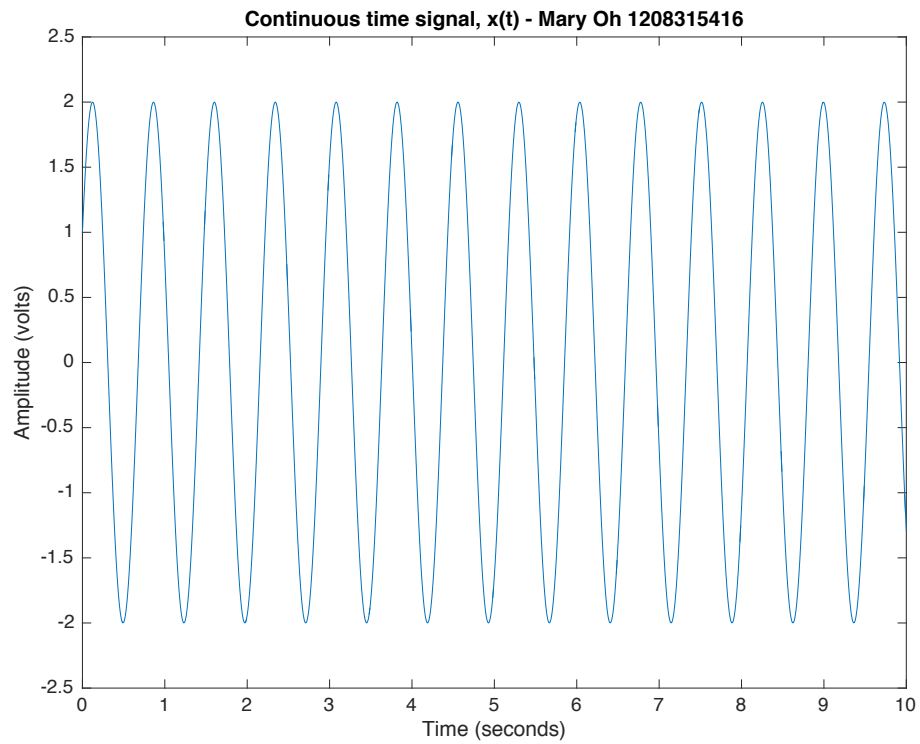


This signal is an even signal. Looking at the plot, it was reflected about the y-axis.

(1.d)

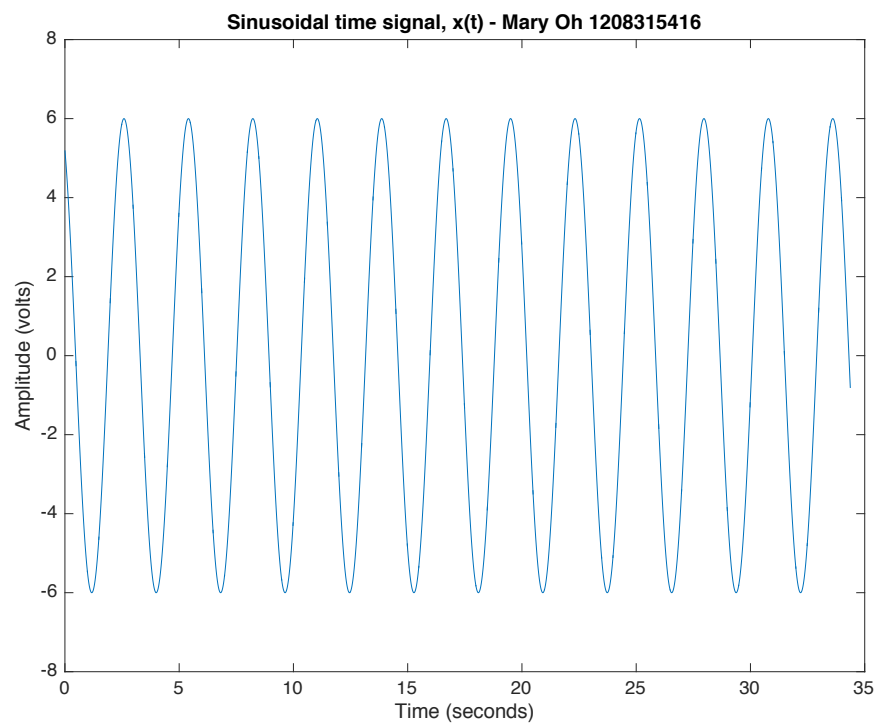


(2.a)



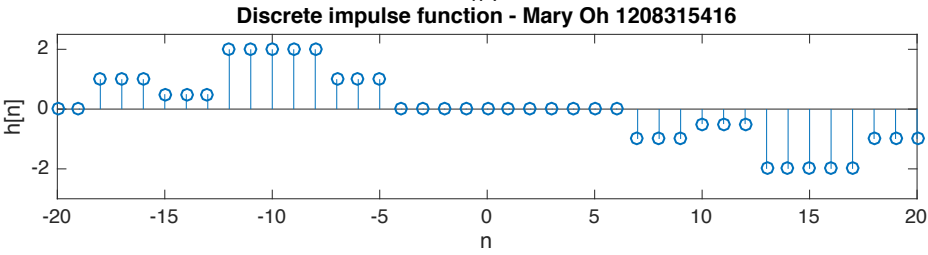
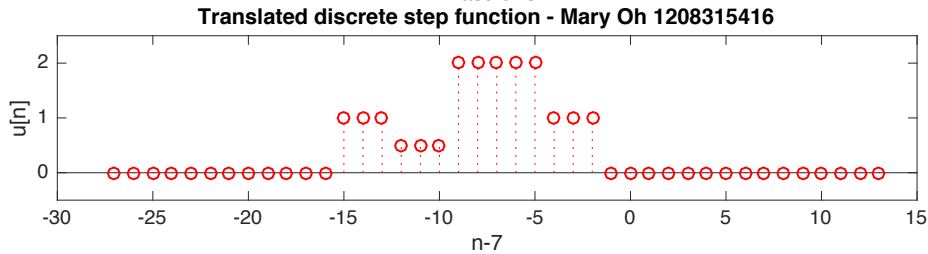
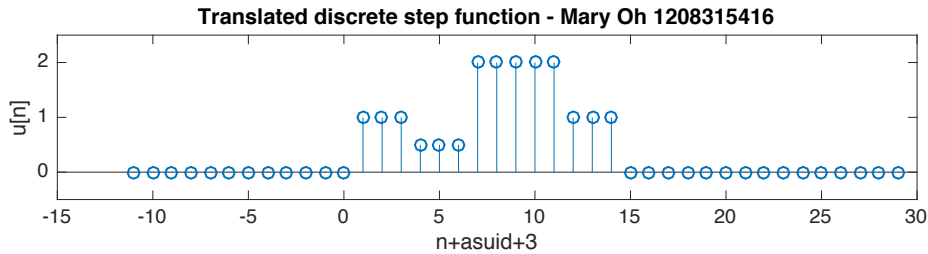
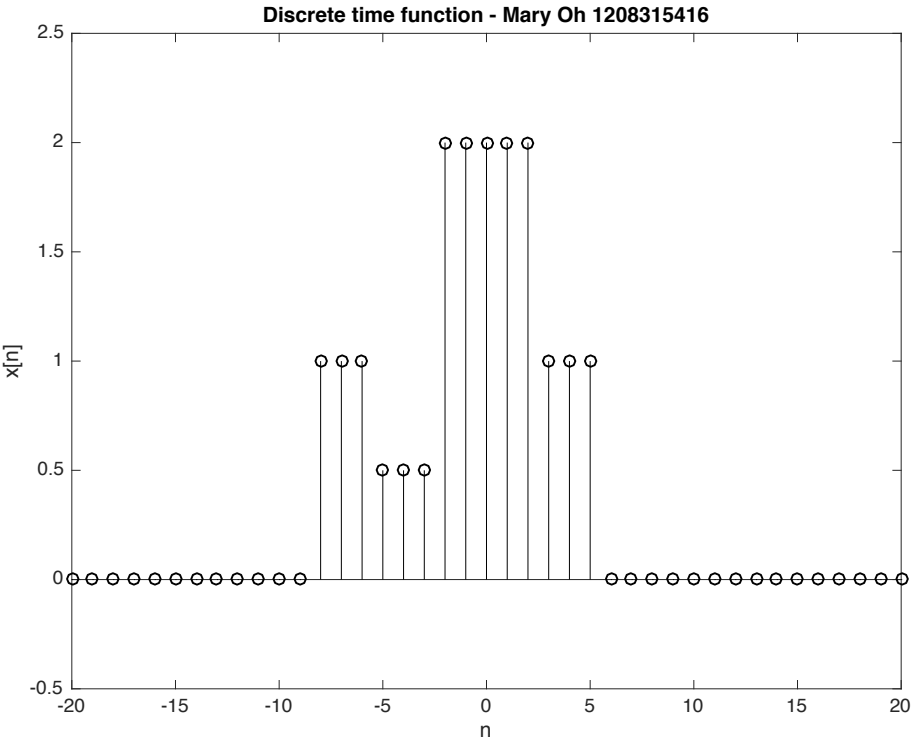
(2.b) Yes, the signal is periodic. The period is $1/\text{freq} = 0.7392$.

(2.c)

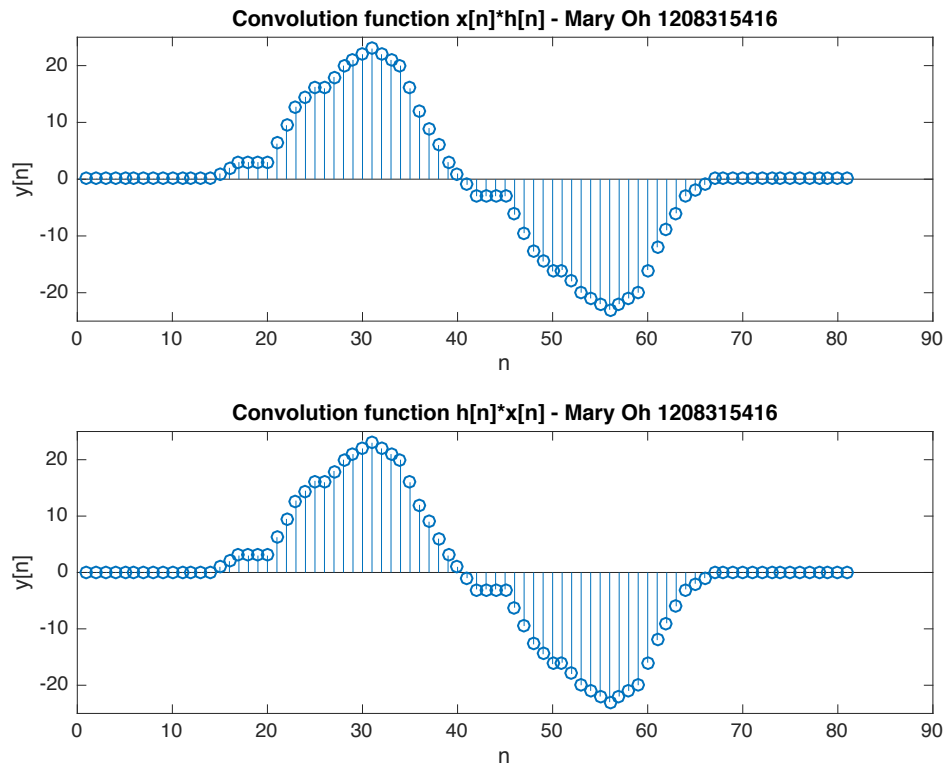


Yes, this is periodic. The period is $1/\text{freq} = 1.9099$.

(3.a)



(3.b and 3.c)



Yes, both of the signals are the same. This is also LTI systems, which mean that this is commutative, hence the plot being the same for both convolution function.