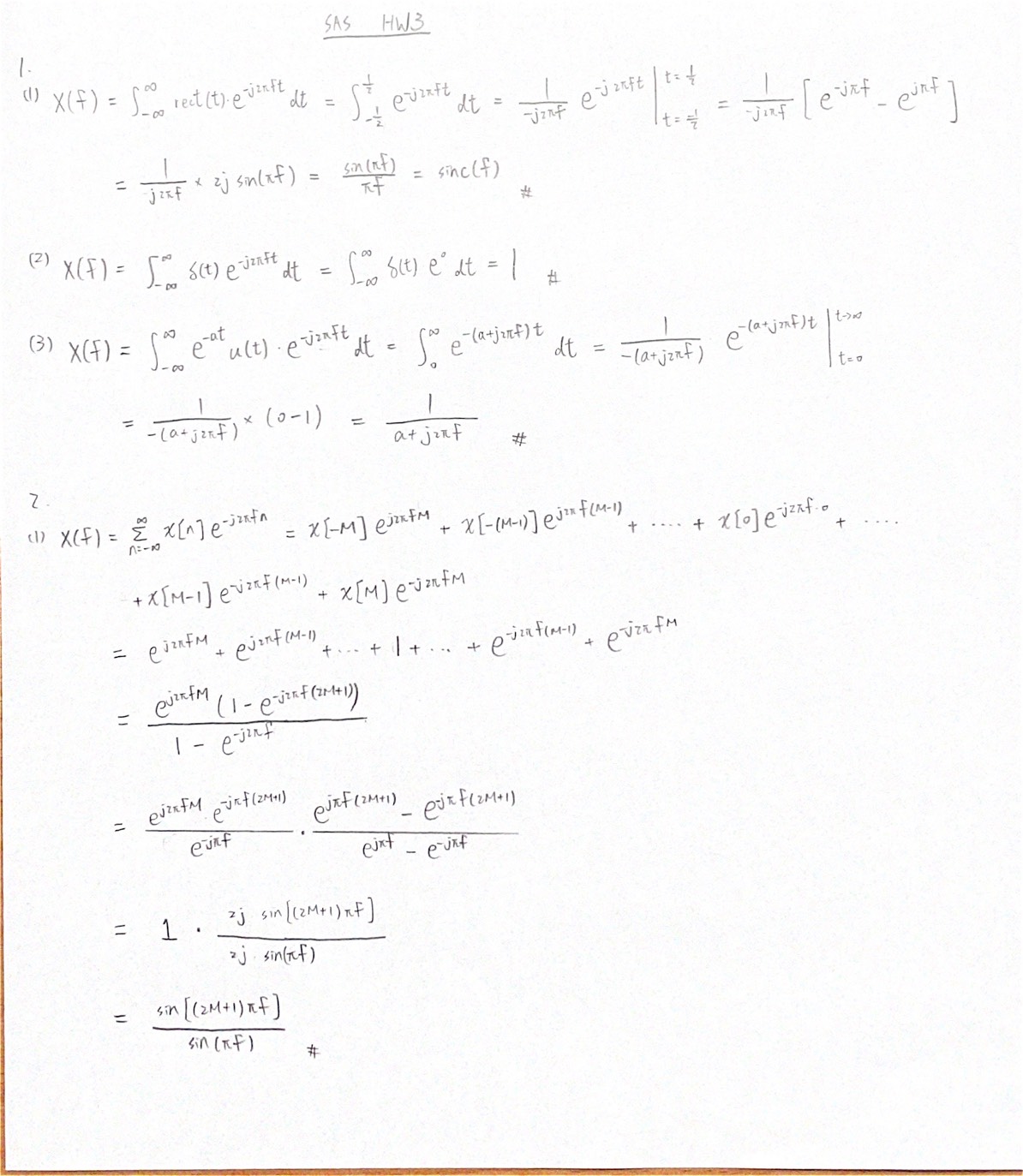
**Homework #03**

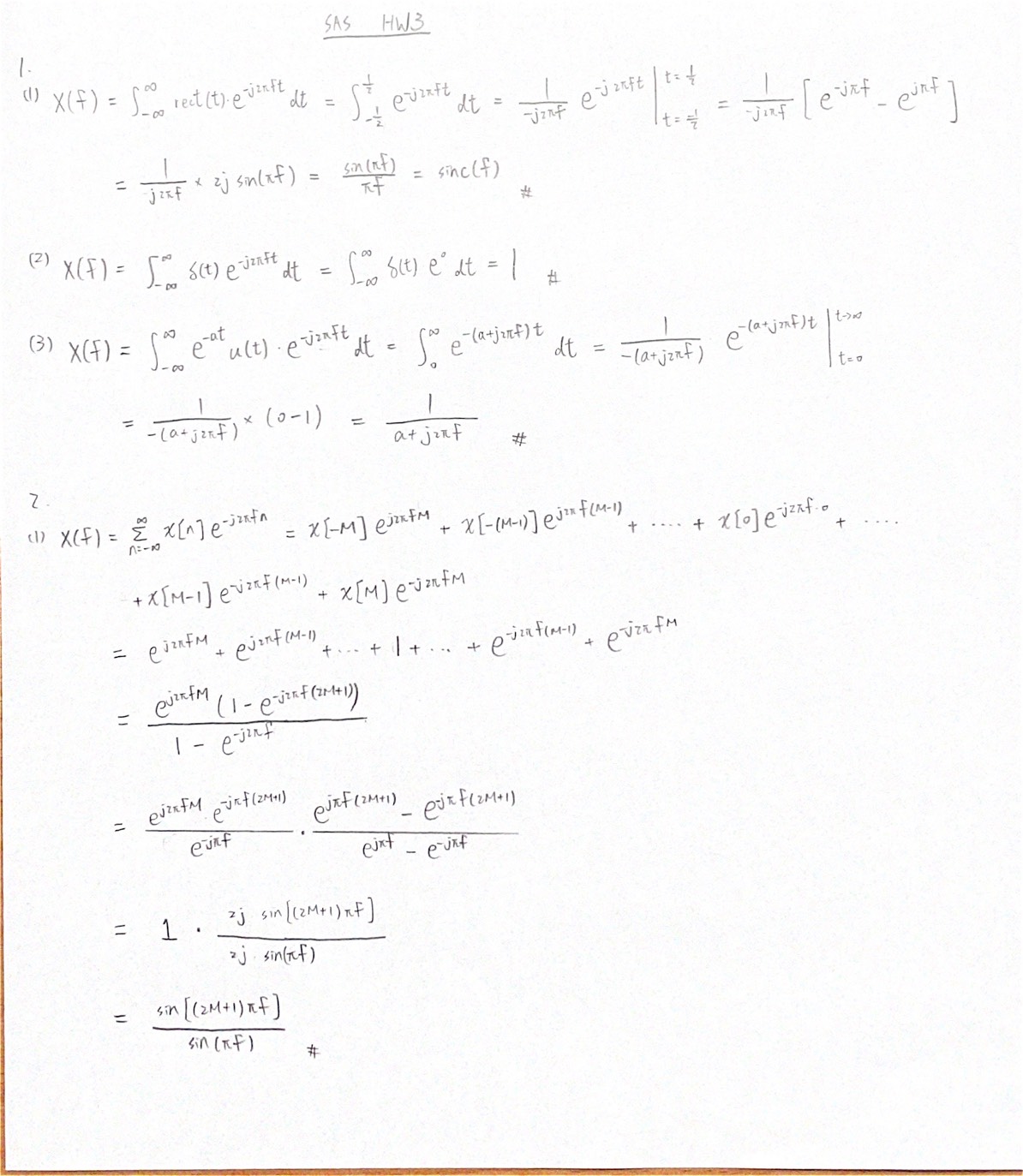
**Problem 1**

Find CTFT of the following signals.

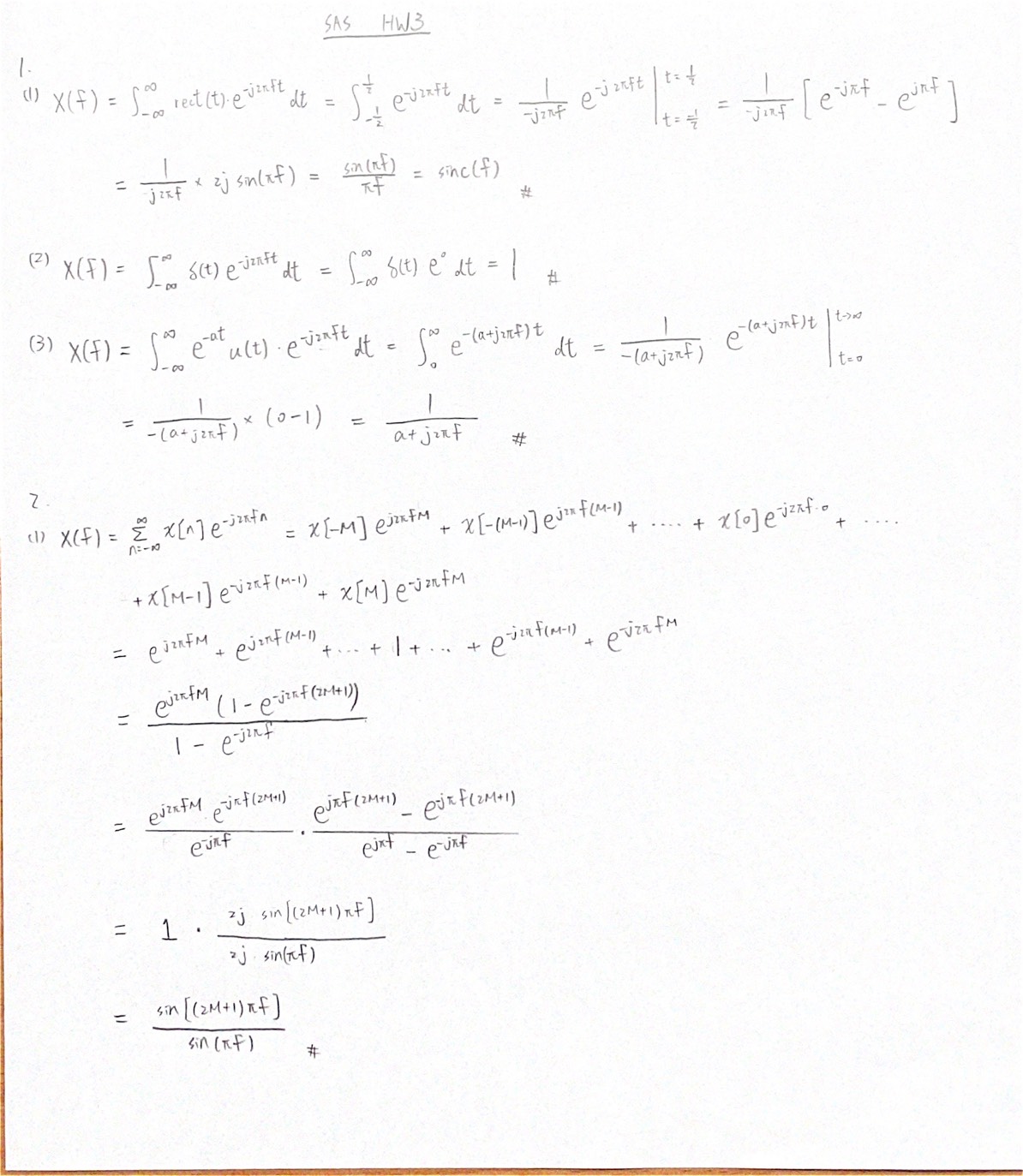








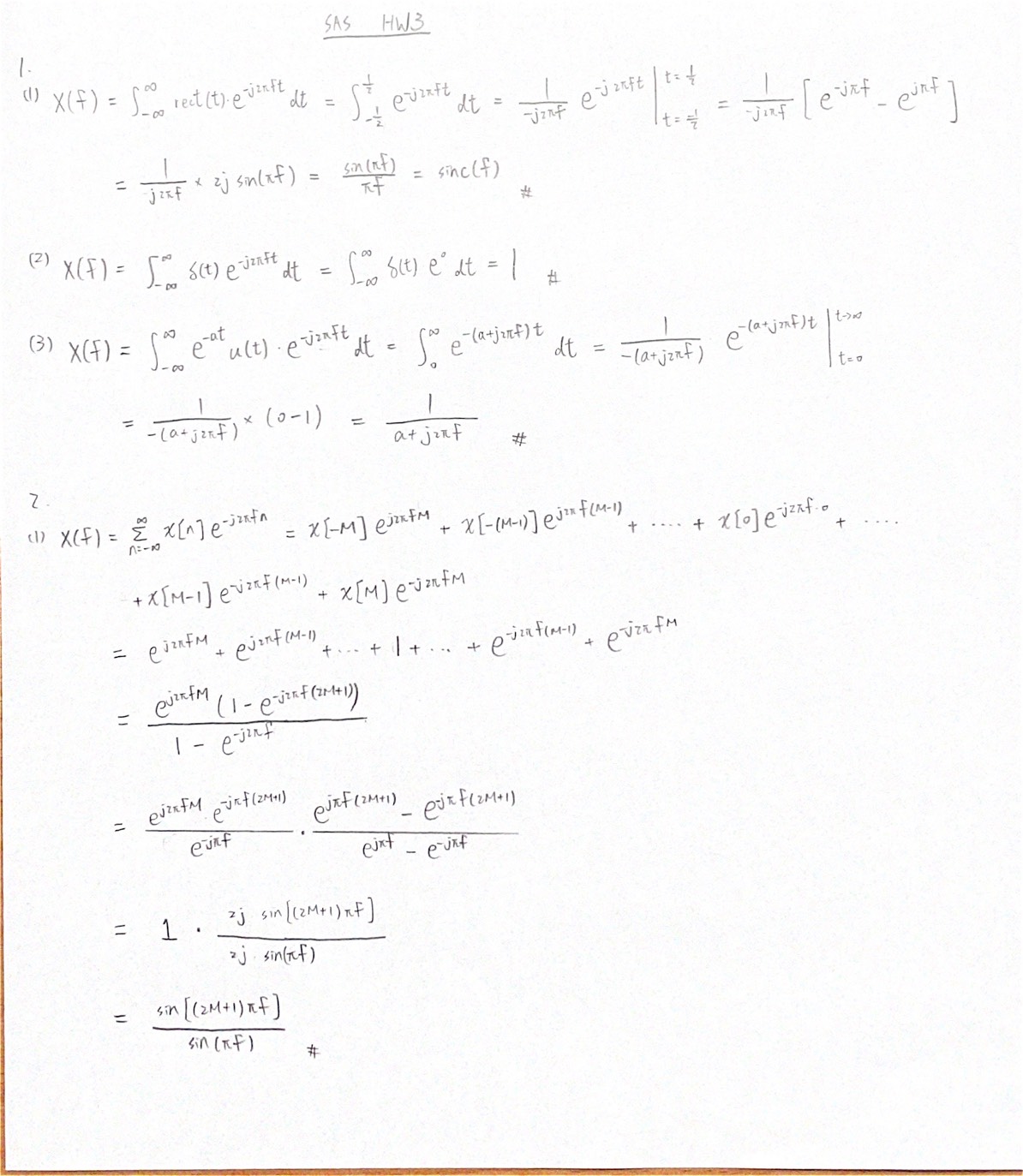


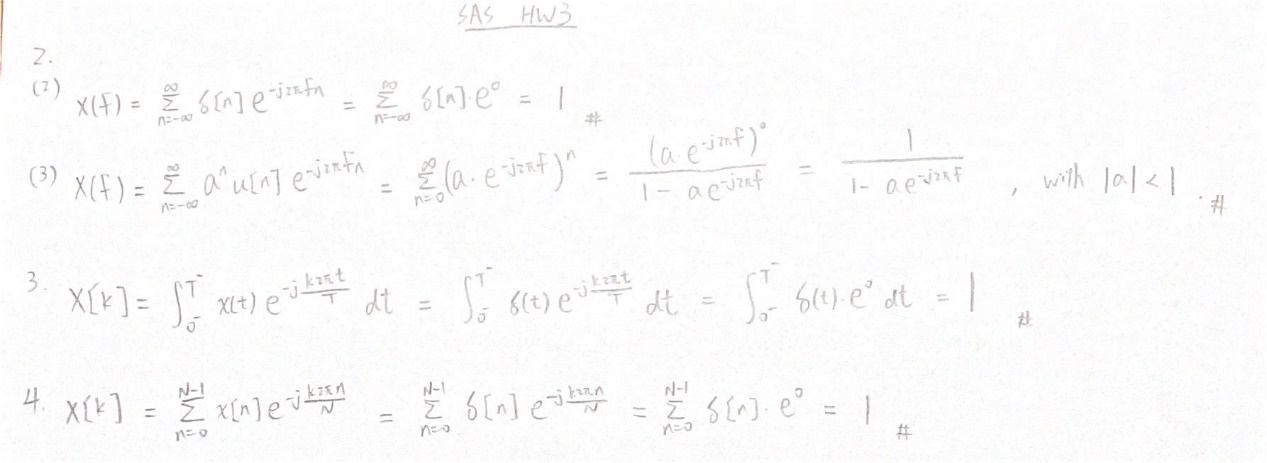


**Problem 2**

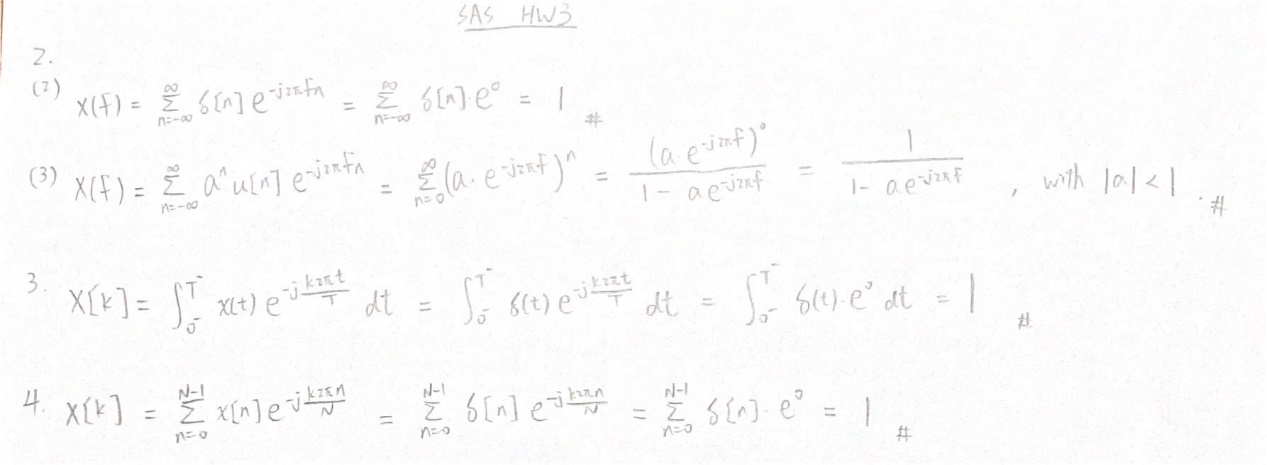
Find DTFT of the following signals.







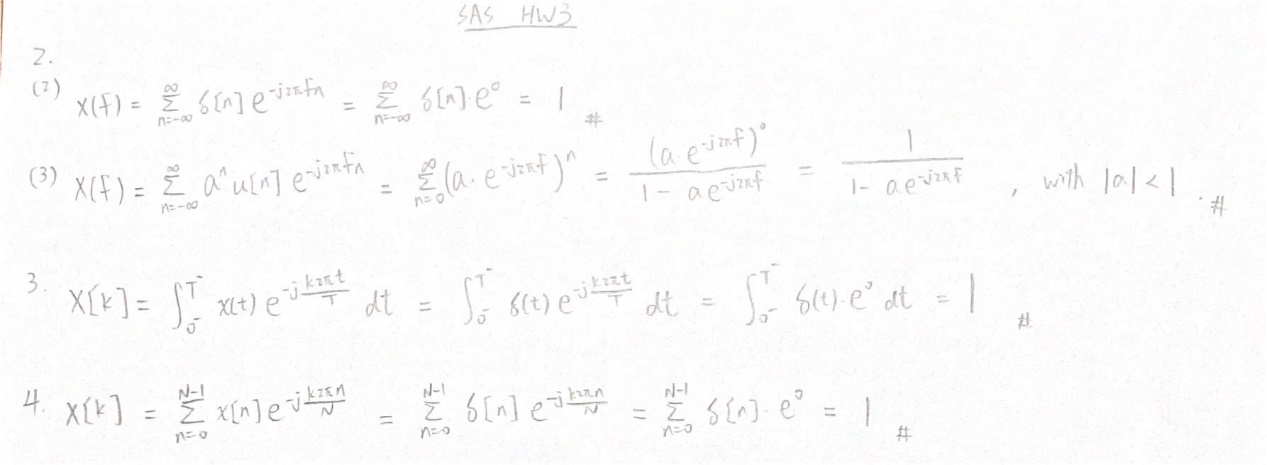




**Problem 3**

Find CTFS of the following signal.

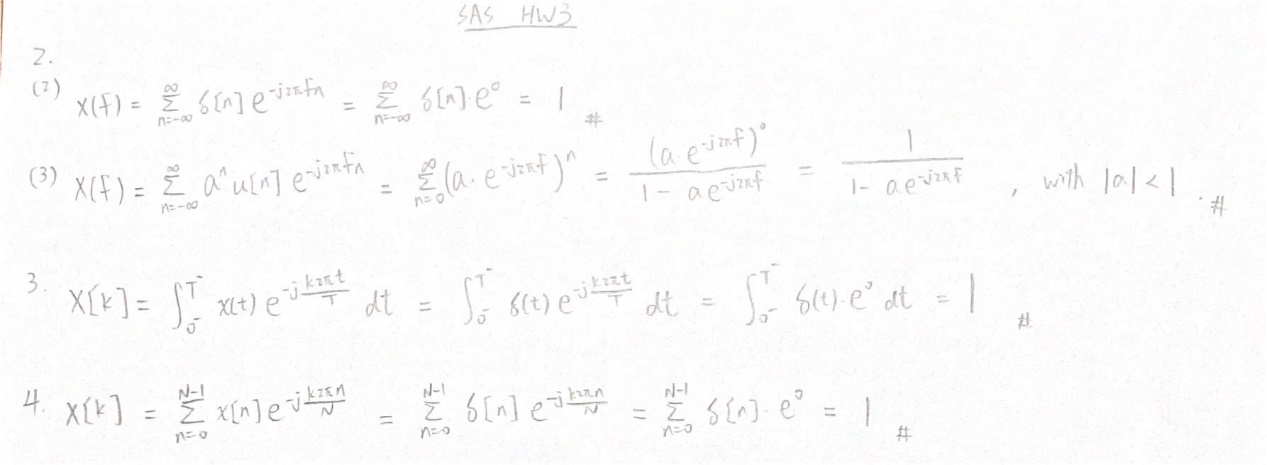




**Problem 4**

Find DTFS of the following signal.

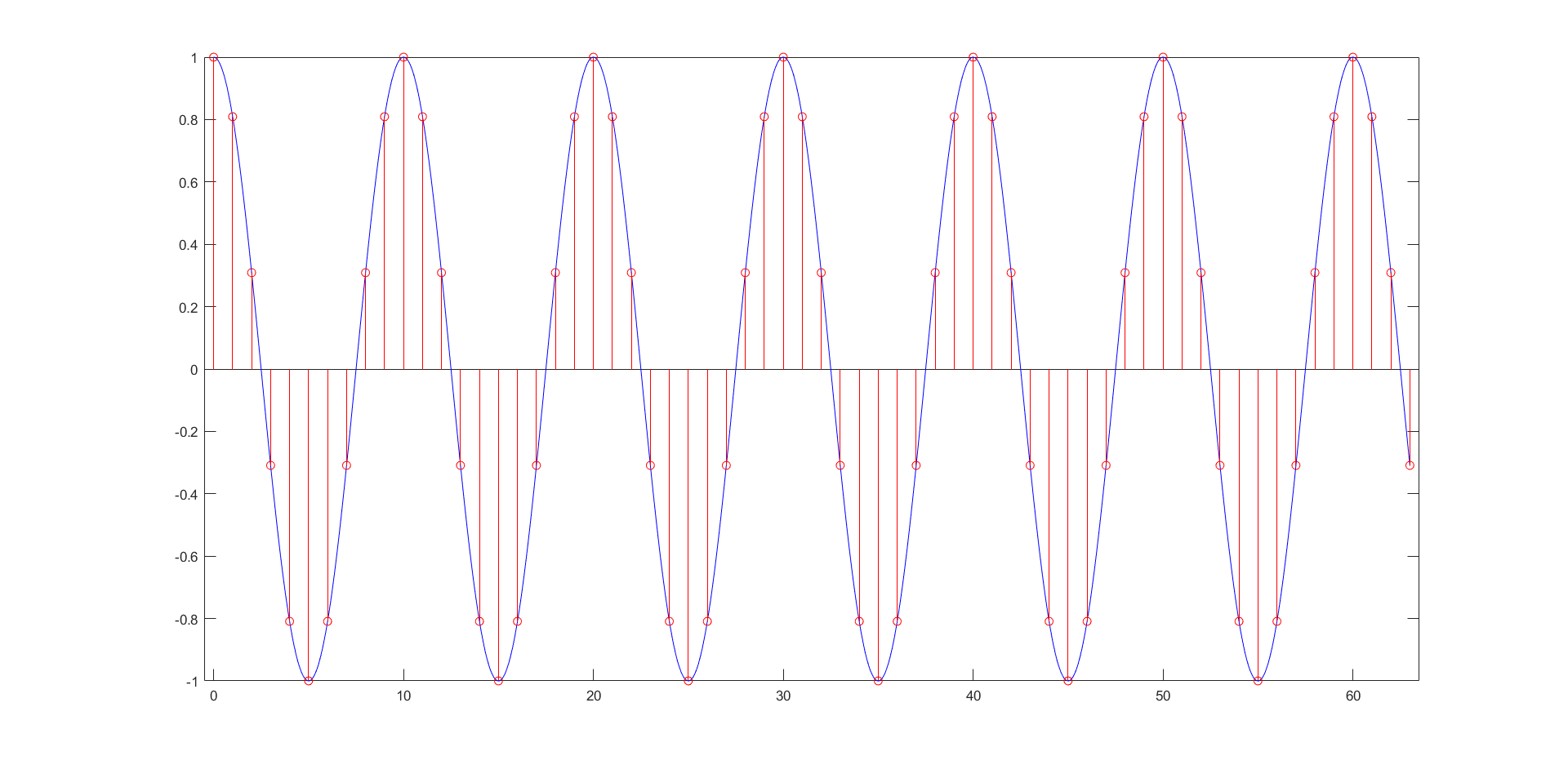


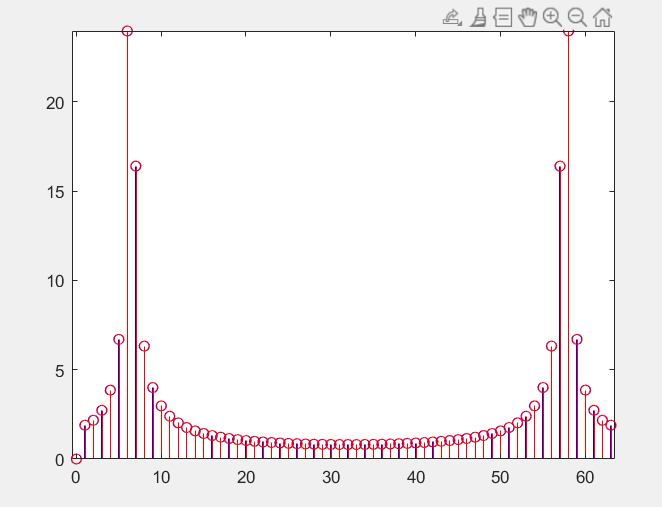


**Problem 5**

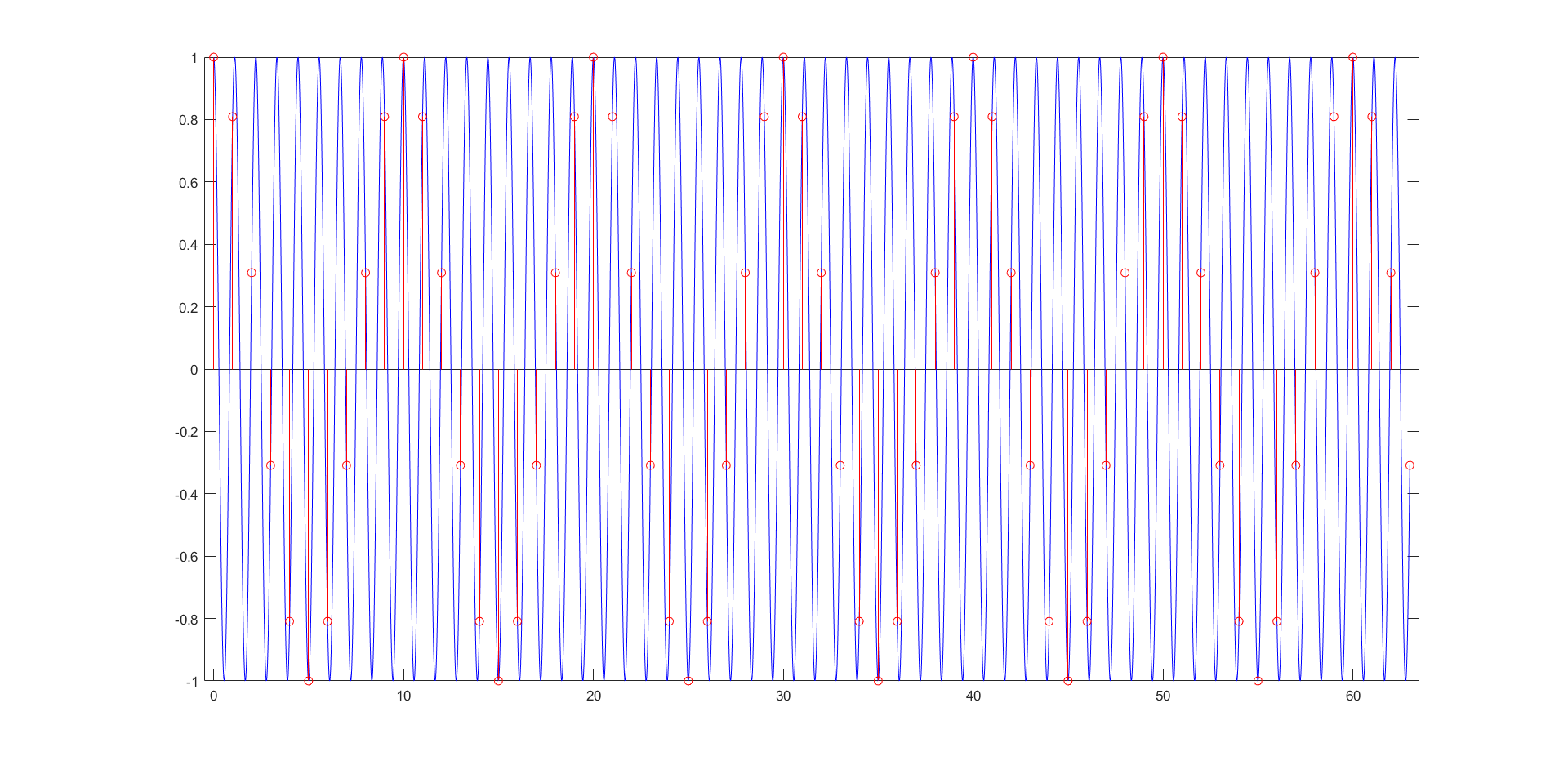
**Part I**

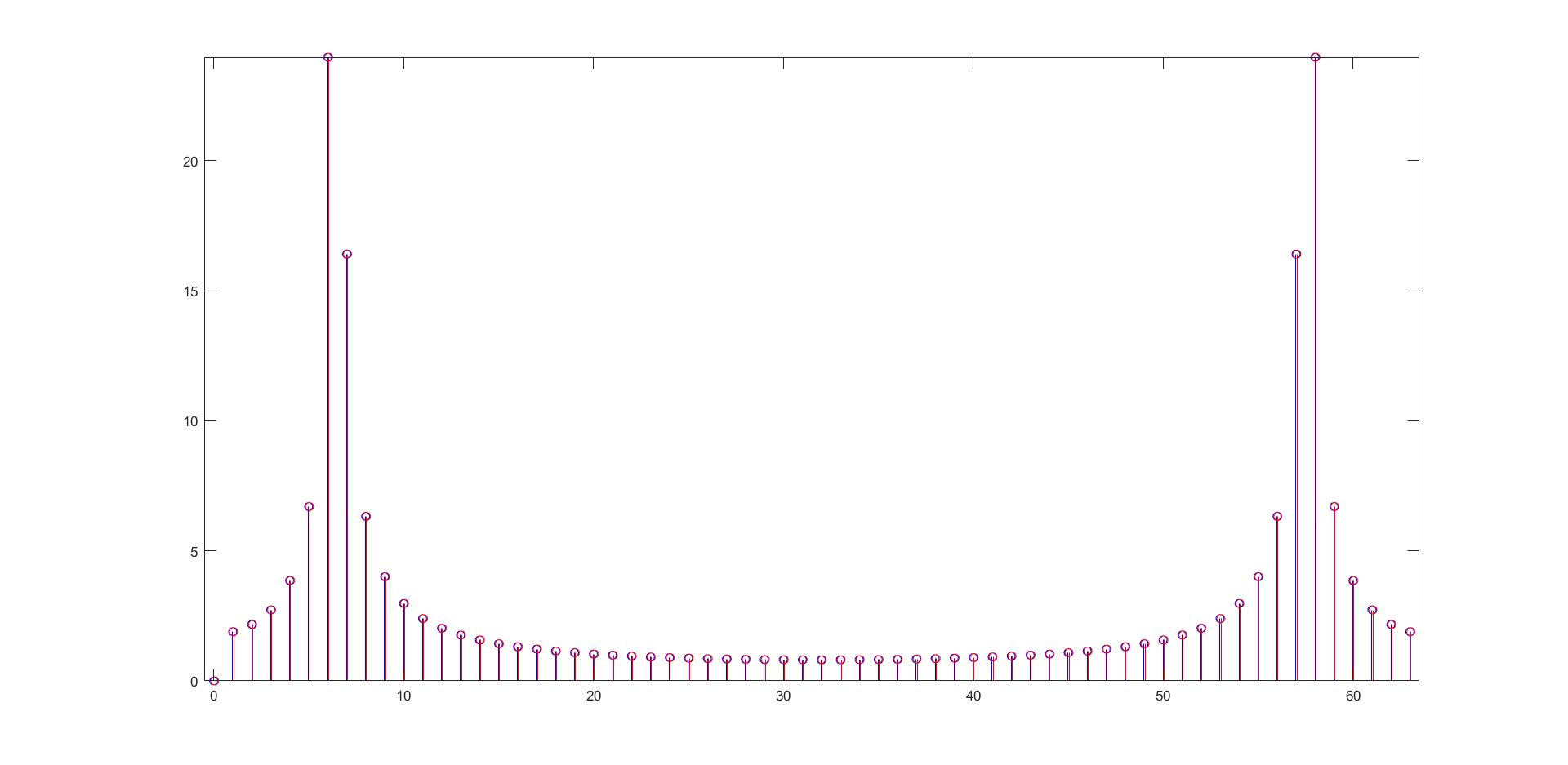
(a) f0 = 0.1 L = 64





(b) f0 = 0.9 L = 64



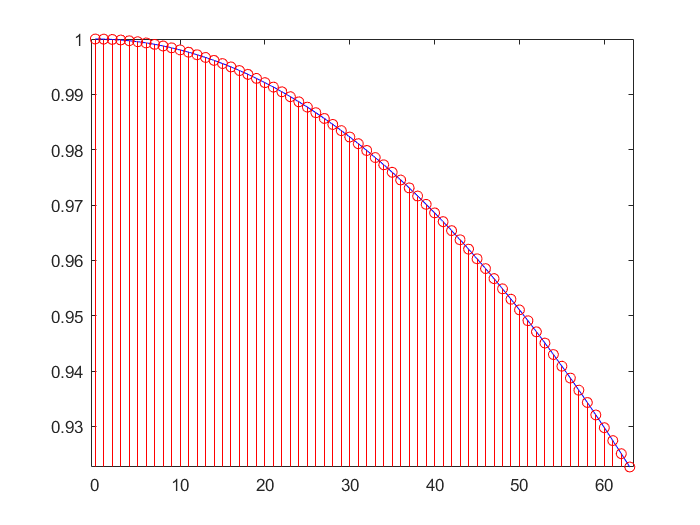


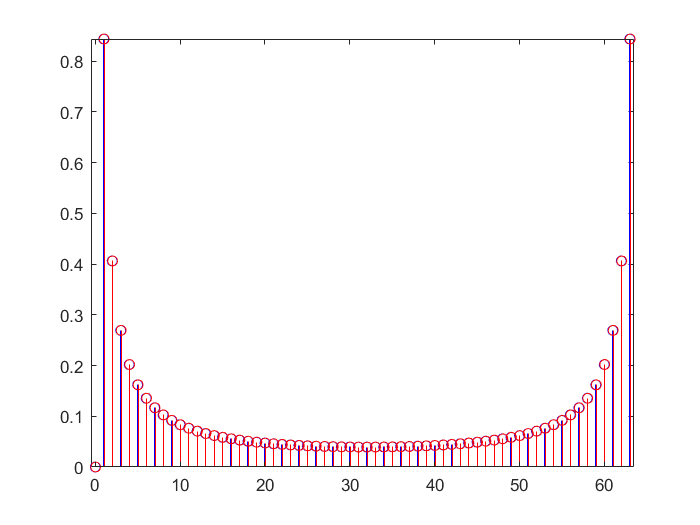
(c) Compare the results of (a) and (b).

Although the two frequencies are different, they are the same after sampling.

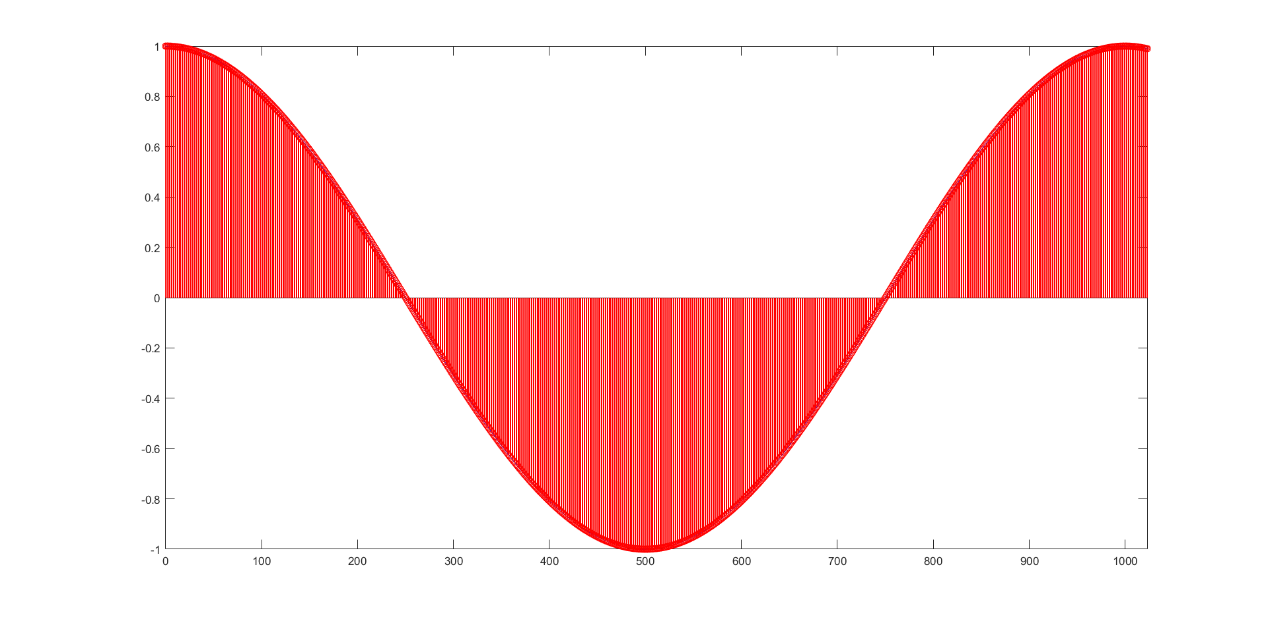
**Part II**

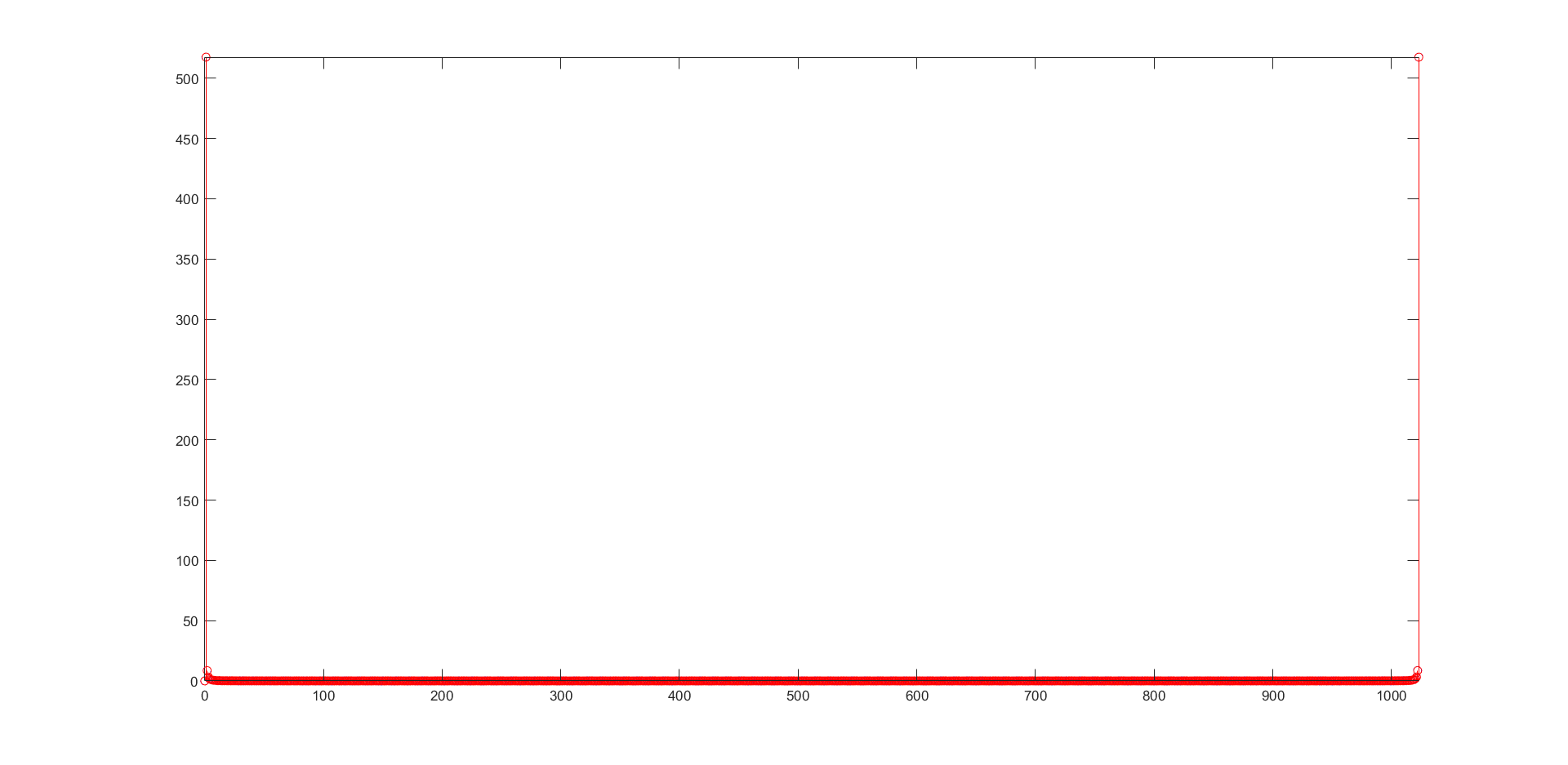
(a) f0 = 0.001 L = 64





(b) f0 = 0.001 L = 1024





(c) Compare the results of (a) and (b).

Since the data length L of (a) is 64, that of (b) is 1024, (a)is the fronter part of (b).