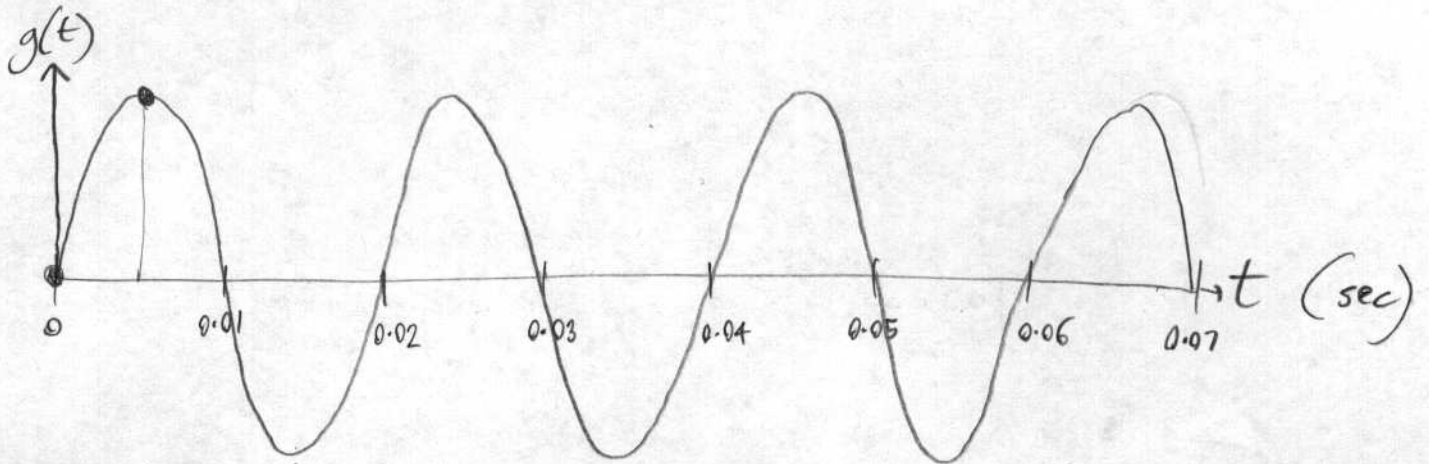


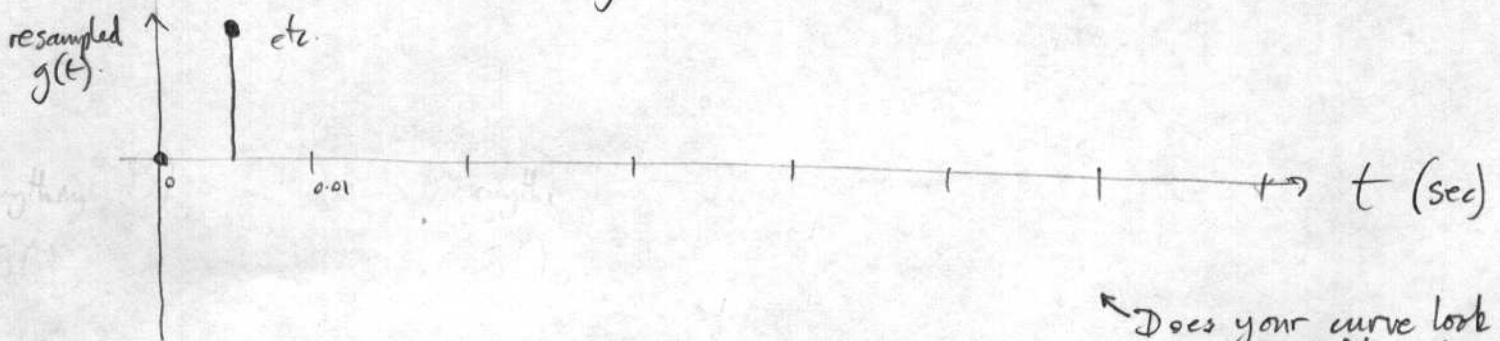
# MATH 5 WORKSHEET = Digital sampling

5/29/07  
Barnett

Here's a sinusoidal signal of frequency 50 Hz

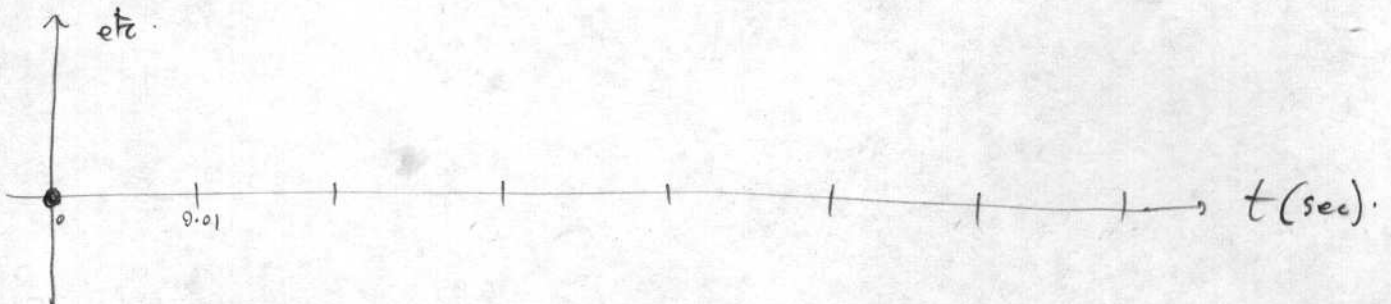


Draw samples (spikes) every 0.005 s ( $f_s = 200$  Hz), then connect them with a smooth curve



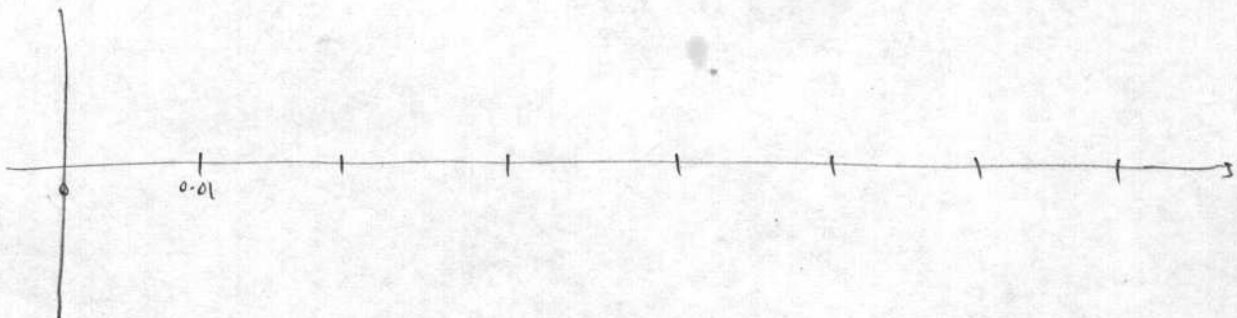
Does your curve look like original?

Do the same but every 0.01 s ( $f_s = ?$ )



Does your curve look like original?

Do the same but every 0.15 s ( $f_s = ?$ )

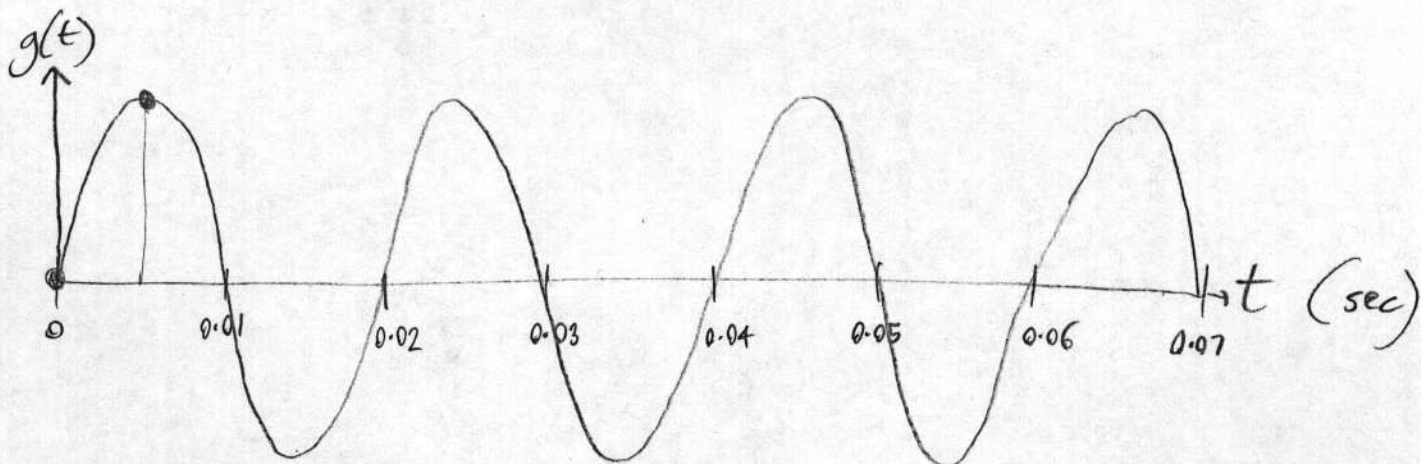


How does your curve relate to original? At least what  $f_s$  is needed to recover signal?

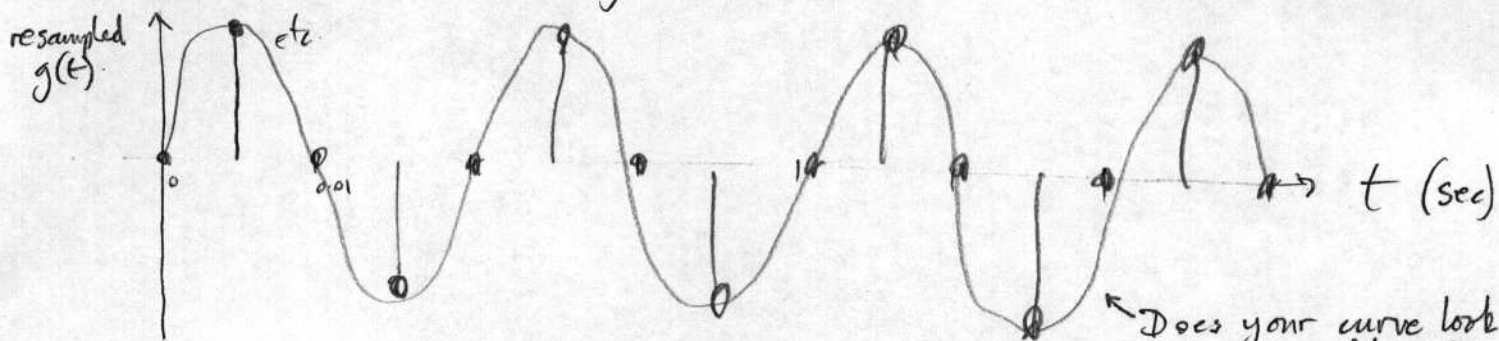
# MATH 5 WORKSHEET : Digital sampling

5/29/07  
Barnett

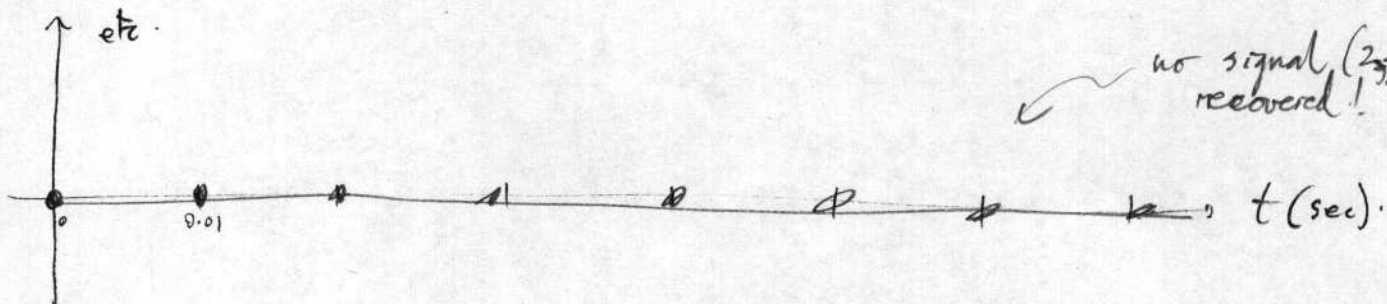
Here's a sinusoidal signal of frequency 50 Hz



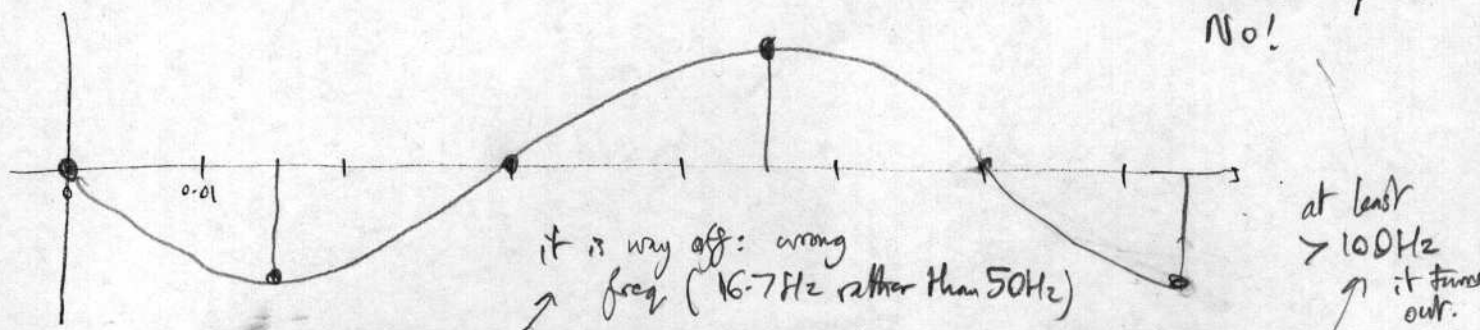
Draw samples (spikes) every 0.005 s ( $f_s = 200$  Hz), then connect them with a smooth curve



Do the same but every 0.01 s ( $f_s = ?$  100 Hz)



Do the same but every 0.15 s: ( $f_s = ?$  6.67 Hz)



How does your curve relate to original? At least what  $f_s$  is needed to recover signal?