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Math 362 Fourier Analysis

September 4, 2017

Ch. 1.2 HW

1.2.5

a.) y=[6, 0, 0, 0]

b.)

c.)

1.2.7

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| --- | --- |
| Input | Output Command |
| 1. >> plot(helloworld) |  |
| 1. y=[0.9766, 0.6104, 0.1831, -0.0916] |  |
| 1. >> length(helloworld)   ans =  81920 | >> length(helloworld)  ans =  81920 |
| 1. >> plot(helloworld(1:600)) |  |
| 1. >> [x,sr]=audioread('helloworld.wav');   >> sr  sr =  44100 |  |
| 1. >> n=length(x);   >> n/sr  ans =  1.8576 |  |
|  |  |

1.2.14

|  |  |
| --- | --- |
| Input | Output Command |
| 1. >> RawSoundThresh(x,sr,20,0.5,0.6)   Percent\_Reduction =  'The percent reduction is 19.999511.' | This percent level is interesting to me because it shows the majority of the points still needed to make the audiowave. |
| 1. Compression\_Ratio =   'The compression ratio is 81747 to 65398, or 1.249992 to 1.' |  |
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