

HW17 M13

Answer (for reference only)

1. Answer

Q1. 1280000

Q2. double

Q3. $16000 * \text{size of double} * 10$

Q4. size = 320044

Q5. 44

Code:

```
fs=16000; nBits=16;
nChannel=1; duration=10;
recObj=audiorecorder(fs, nBits, nChannel);
fprintf('Press any key to record for %g seconds:', duration); pause
recordblocking(recObj, duration);
y = getaudiodata(recObj, 'double');
audioFile='myVoice.wav';
fprintf('Saving to %s...\n', audioFile);
audiowrite(audioFile, y, fs);

[blur,fs] = audioread('/Users/Mac/Documents/MATLAB/myVoice.wav');
filename = 'myVoice.wav';
info = audioinfo(filename);
FileInfo = dir('myVoice.wav');
A = whos('blur');
fprintf('Q1. %d\n',A.bytes);
fprintf('Q2. %s\n',A.class);
fprintf('Q3. %d * size of double * %d\n',info.SampleRate, info.Duration);
fprintf('Q4. size = %d\n',FileInfo.bytes);
fprintf('Q5. %d\n',FileInfo.bytes - info.BitsPerSample*info.TotalSamples/8);
```