Homework #4+5 Written Part for Digital Audio Section
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Answer to Question number 2:

Audio File Types Supported by Processing	**Compressed by Default?**	**Contains Raw Audio Samples?**	**Lossy or Lossless?**	**Sample Rates supported**	**Audio Frequency Range**
WAV(Waveform Audio File Format)	No (But store compressed audio)	Yes	Lossless	Up to 44.1KHz	20Hz to 20KHz
AIF/AIFF(Audio Interchange File Format)	No (but has compressed variant called AIFC)	Yes	Lossless	Up to 44.1KHz	20Hz to 20Khz
MP3(MPEG-1 Audio Layer 3)	Compressed	No	Lossy	Up to 44.1KHz	20Hz to 18Khz

Answer to Question number 3:

Bit depth in audio sampling:

The number of amplitude values (or audio information) that can be captured for each sample is known as the audio bit depth. The most common audio bit depths are 16-bit, 24-bit, and 32-bit. Bit depth represents a number of possible amplitudes that can be recorded. For example: an audio sampled at 16-bit depth can hold up to 2^16 = 65536 values of amplitude. With a higher audio bit depth, more amplitude values are available to sample. More total points can be created to rebuild the analog wave when the audio bit depth and sampling rate are increased, which, in turn, improves the sound quality.

For lossless uncompressed audio file formats like AIFF and WAV, the default bit-depth is **16-bit** (HD audio).