

2 Data storage can be measured using different units of measurement.

(a) Identify the name of the smallest unit of measurement of data.

..... [1]

(b) State how many nibbles there are in 2 bytes.

..... [1]

(c) A 10 second sound effect is recorded for a movie.

It is recorded with a sample rate of 22,016 Hz and a sample resolution of 8 bits.

Calculate the file size of the sound effect in kibibytes (KiB). Show all your working.

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Answer KiB

[3]

(d) The sound effect file is compressed for storage.

(i) State what is meant by file compression.

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..... [1]

(ii) Give **one** benefit of compressing the file for storage.

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..... [1]