|  |  |
| --- | --- |
| **B** | **Sound Calculations** |
| A sound is recorded at 15kHz. How many samples are taken every second? | |
| **15** | |
| A sound is recorded with a sample interval of 0.005s. What is the sample rate? | |
| **16**  **Hz** | |
| What is the file size of a sample which has a bit rate of 50Kbps and lasts for 22 seconds? | |
| **17**  **bits** | |
| What is the bit rate if a sample is taken with a bit depth of 4 and a sample rate of 50Hz? | |
| **18** | |
| If a sound file is 80KB, and it was recorded at a bit rate of 6400bps, how long is it? | |
| **19**  **seconds** | |
| Sound file A has a bit depth of 4. Sound file B has a bit depth of 8. How many times bigger will B be? | |
| **20** | |

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| **A** | **Representing Sound** | | |
| **Sample interval** | | The length of **1**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between two samples | |
| **File size** | | **2***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* × *bit depth* × *sample size* | |
| **3** | | Having discrete values which can be stored as binary | |
| **4** | | Having continuously changing values | |
| **Sample** | | The **5**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ element of a recorded sound. A value or set of values which represent a sound at a **6**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| **7** | | The number of seconds over which a sample was taken | s |
| **8** | | The number of times per second the sound is sampled. | **9**\_\_\_ |
| **Bit rate** | | The number of **10**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ used to store a second of sampled sound. **11**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ × sample rate | bps |
| **Bit depth /**  **12\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | The number of bits used to store each sample | **13**\_\_ |
| **14** | | An audio file which is intended to be played at the same time as another | |

Name:

Data Representation: Compression of Sound