

2 A student has an image file stored on their computer.

(a) The image file was taken by a digital camera.

Tick (✓) **one** box to show whether a digital camera is an example of an input, output, process or storage device.

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|----------|---------|--------------------------|
| A | input | ☐ |
| B | output | ☐ |
| C | process | ☐ |
| D | storage | ☐ |

[1]

(b) The size of the image file is 3072 bytes.

(i) Give the size of the image file in kibibytes (KiB).

..... [1]

(ii) State the number of nibbles in 1 byte.

..... [1]

Working space

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(c) The image file has a colour depth of 32 bits.

(i) State what is meant by a colour depth of 32 bits.

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..... [1]

(ii) The colour depth of the image file is changed to 64 bits.

Explain what effect this change has on the image file.

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(d) The student uses lossless compression to compress the image file.

Explain how the image file is compressed using lossless compression.

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..... [3]