

(i) The club has a simple black and white logo. The image is compressed using a lossless, run-length encoding (RLE) algorithm.

Explain how a run-length encoding algorithm works.

(2)

Uses frequency data pairs [1] to collect runs of data together [1] count the number of repeated values [1] and combine with the value [1]

(b) The photographer downloads images from a website. The images are compressed.

(i) Give **one** reason why images are compressed.

(1)

to reduce file size [1] to make them quicker to transfer [1] to make them more efficient to store [1] NOT "easier" or "make file smaller" etc...

A lossless, run length encoding (RLE) algorithm is used to compress the images.

This table shows some of the data for an image.

r	r	r	r	b	b	r	y	y	y
---	---	---	---	---	---	---	---	---	---

(ii) Apply RLE to the data and give the result.

(2)

4r2b1r3y

One for frequencies/1 for data

A lossy compression algorithm could be applied to the image data.

One feature of lossy compression is that it reduces the file size.

(c) Give **two** other features of lossy compression.

(2)

losses some data [1] reduces quality [1] detail about particular file types is OK for [1]