

Practical 9

Worksheet

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Part 2:

Binary Compression

1.

40 bits

2.

32 bits

Compression ratio: $32/40 = 80\%$

Bits in 4runsrle.bin:

32 bits

ASCII Compression

1.

96 bits

2.

416 bits

Compression ratio: $416/96 = 433.33\%$

This occurs because there is very rarely long runs in the English language.

Bitmap compression:

1.

1536 bits

Compressed:

1144 bits

Compression ratio: $1144/1536 = 74.5\%$

2.

6144 bits

Compressed:

2296 bits

Compression ratio: $2296/6114 = 37.55\%$

For larger bitmaps we save more space because the long runs are much longer