

Handout 30. Code the elements of a list in binary

Instruction: In each empty bubble, write an example of a list for which all elements can be coded with one bit, two bits, three bits or four bits.

1 bit:

0
1

2 bits:

00
01
10
11

3 bits:

000
001
010
011
100
101
110
111

4 bits:

0000
0001
0010
0011
0100
0101
0110
0111
1000
1001
1010
1011
1100
1101
1110
1111

Challenge: Determine the minimum number of bits you need to combine to code each of the 26 letters of the alphabet.