University of Bahrain
Bahrain Teachers College
TC2MA324: History of Mathematics
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Quiz 9

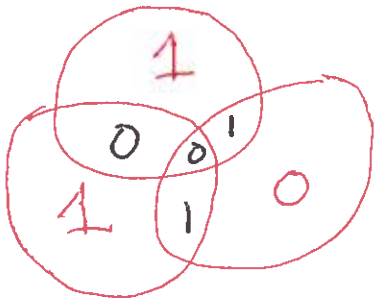
Name: Solution

1. (10 points) Encode using Hamming code the letter m (note that the ASCII code of m is 109).

"m" is 109 which is in binary

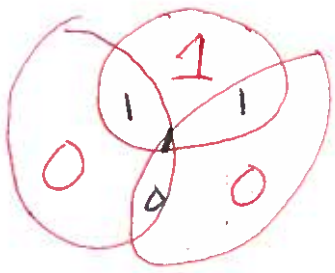
0 1 1 0 1 1 0 1

step 1: Encode 0110



1 1 0 0 1 1 0

step 2: Encode 1101



1 0 1 0 1 0 1

The encoded message is

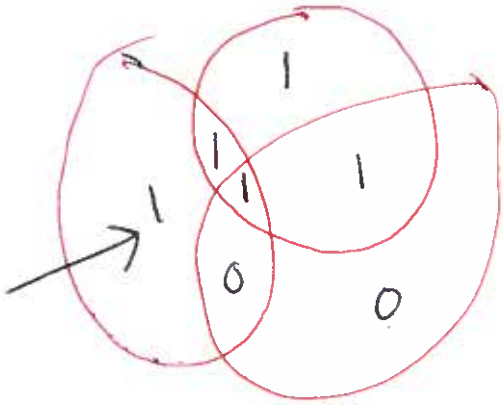
1 1 0 0 1 1 0 1 0 1 0 1 0 1

2. (3 points) Decode each of the following 7bits that we send using the Hamming code.

   1. 0111111

1111111

   2. 1110101



1010101