|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Problem 1** | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |  | 128 | 200 | 56 | 57 |
| 128 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | -128 | -128 | -32 | -32 |
| 200 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |  | 0 | 72 | 24 | 25 |
| 56 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |  |  | -64 | -16 | -16 |
| 57 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |  |  | 8 | 8 | 9 |
|  |  |  |  |  |  |  |  |  |  |  | -8 | -8 | -8 |
|  |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | -1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Problem 2** | 128+ | 64+ | 32+ | 16+ | 8+ | 4+ | 2+ | 1 |  |  |  |  |  |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | = | 1 |  |  |  |
|  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | = | 255 |  |  |  |
|  | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | = | 172 |  |  |  |
|  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | = | 244 |  |  |  |

**Problem 3 :** So we can understand how to computer stores, and convert information.

**Problem 4 :** I chose to use the subtraction method because it is the easiest way to convert a decimal number to an 8-bit binary number

**Problem 5 :**

**Problem 6 :** Base10