1.25

a.

183 = 10110111

183 = 128+32+16+4+2+1

=

=

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  | 17 | 33 | 65 | 97 | 1 | 1 | 1 | 1 |

= (17 \* 33 \* 65 \* 1 \* 1 \* 1) mod 256

= 113

b.

477 = 111011101

=

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | 2 | 4 | 16 | 256 | 536 | 296 | 616 | 456 | 936 |

= (2 \* 16\* 256 \* 536 \* 616 \* 456 \* 936) mod 1000

= 272

c.

507 = 111111011

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | 11 | 121 | 1034 | 388 | 867 | 830 | 1128 | 748 | 380 |

= (380 \* 748 \* 1128 \* 830 \* 867 \* 388 \* 121 \* 11) mod 1237

=322