Assignment 1

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Problem 1

i	e_i	Step 2a	Step 2b
4			

Problem 2

```
  456
  555
  --------------------------------------
            | 2      | 2 + 0 | 5 + 3 | 0
            | 2      | 2     | 8     | 0
  --------------------------------------
    | 2      | 2 + 0 | 5 + 3 | 0     | 0
    | 2      | 2     | 8     | 0     | 0
  --------------------------------------
  2 | 2 + 0 | 5 + 3 | 0     | 0     | 0
  2 | 2     | 8     | 0     | 0     | 0
  --------------------------------------
  2 | 4 + 1 | 2 + 1 | 0     | 8     | 0

  256 * 555 = 253080
```

Problem 3

```
                  | 4      | 5        | 6
  *               | 4      | 5        | 6
  ----------------------------------------------------
  0 |             |        | 2 * 24 | 2 * 30    | 36
  0 |             | 2 * 20 | 25     | 0         | 0
  0 | 16      | 0     | 0      | 0         | 0
  0 | 16 + 4  | 40 + 7 | 73 + 6 | 60 + 3 | 6
  2 | 0       | 7      | 9      | 3         | 6
  ----------------------------------------------------
  = 207936
```

Problem 4

Problem 5

$p = 29, a = 23, g = 10$

$g^a \pmod{p}$

Problem 6