

In [18]:

```
from sympy import *
```

In [19]:

```
import numpy as np
import galois
```

In [20]:

```
GF7 = galois.GF(7)
GF7
```

Out[20]:

```
<class 'numpy.ndarray over GF(7)'>
```

In [22]:

```
M = GF7([[3, 1, 4, 1], [5, 2, 6, 5], [0, 5, 2, 1]])
```

In [23]:

```
GF7.row_reduce(M)
```

Out[23]:

```
GF([[1, 0, 0, 4],
     [0, 1, 0, 3],
     [0, 0, 1, 0]], order=7)
```

In []: