#MAGMA

$$\begin{pmatrix} 1 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 \end{pmatrix}$$

```
K := FiniteField(2);

C := LinearCode<K, 12 | [1,0,0,0,0,1,0,1,0,0,0,1],[0,1,0,0,0,1,0,1,1,0,0,0],[0,0,1,0,0,1,0,1,0,1,0,0],
[0,0,0,1,0,1,0,1,0,0,1,0],[0,0,0,0,1,1,0,0,1,1,1,1],[0,0,0,0,0,0,1,1,1,1,1,1]>;
G2 := AutomorphismGroup(C);
G2;
WeightDistribution(C);


Permutation group G2 acting on a set of cardinality 12
Order = 23040 = 2^9 * 3^2 * 5
    (2, 9)(4, 7, 11, 5)
    (2, 9)(6, 8)
    (2, 9)(4, 11)
    (2, 9)(3, 10)
    (1, 12)(2, 9)
    (4, 8)(6, 11)
    (3, 6)(8, 10)
    (2, 9)(5, 7)
    (2, 5)(7, 9)
    (1, 10)(3, 12)
[ <0, 1>, <4, 15>, <6, 32>, <8, 15>, <12, 1> ]
**************************
```

#SAGEMATH

```
G = PermutationGroup([[(2, 9),(4, 7, 11, 5)],[(2, 9),(6, 8)],[(2, 9),(4, 11)],[(2, 9),(3, 10)],[(1, 12),(2, 9)],[(4, 8),(6,
11)],[(3, 6),(8, 10)],[(2, 9),(5, 7)],[(2, 5),(7, 9)],[(1, 10),(3, 12)]])
```