

「有限の世界」 合同式における掛け算の表

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|--|---|---|---|---|---|---|---|---|---|-------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| mod 2 | <table border="1"><tr><td>×</td><td>0</td><td>1</td></tr><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>1</td><td>0</td><td>1</td></tr></table> | × | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | mod 3 | <table border="1"><tr><td>×</td><td>0</td><td>1</td><td>2</td></tr><tr><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>1</td><td>0</td><td>1</td><td>2</td></tr><tr><td>2</td><td>0</td><td>2</td><td>1</td></tr></table> | × | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 2 | 1 | | | | | | | | | | |
| | × | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| × | 0 | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 0 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mod 4 | <table border="1"><tr><td>×</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>2</td><td>0</td><td>2</td><td>0</td><td>2</td></tr><tr><td>3</td><td>0</td><td>3</td><td>2</td><td>1</td></tr></table> | × | 0 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 3 | 2 | 0 | 2 | 0 | 2 | 3 | 0 | 3 | 2 | 1 | | | | | | | | | | | | |
| | × | 0 | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 0 | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 0 | 2 | 0 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 0 | 3 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mod 5 | <table border="1"><tr><td>×</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>1</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>2</td><td>0</td><td>2</td><td>4</td><td>1</td><td>3</td></tr><tr><td>3</td><td>0</td><td>3</td><td>1</td><td>4</td><td>2</td></tr><tr><td>4</td><td>0</td><td>4</td><td>3</td><td>2</td><td>1</td></tr></table> | × | 0 | 1 | 2 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 3 | 4 | 2 | 0 | 2 | 4 | 1 | 3 | 3 | 0 | 3 | 1 | 4 | 2 | 4 | 0 | 4 | 3 | 2 | 1 | |
| | × | 0 | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 0 | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 0 | 2 | 4 | 1 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 0 | 3 | 1 | 4 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | 4 | 3 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

mod 6

| \times | 0 | 1 | 2 | 3 | 4 | 5 |
|----------|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 |
| 2 | 0 | 2 | 4 | 0 | 2 | 4 |
| 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| 4 | 0 | 4 | 2 | 0 | 4 | 2 |
| 5 | 0 | 5 | 4 | 3 | 2 | 1 |

mod 7

| \times | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 0 | 2 | 4 | 6 | 1 | 3 | 5 |
| 3 | 0 | 3 | 6 | 2 | 5 | 1 | 4 |
| 4 | 0 | 4 | 1 | 5 | 2 | 6 | 3 |
| 5 | 0 | 5 | 3 | 1 | 6 | 4 | 2 |
| 6 | 0 | 6 | 5 | 4 | 3 | 2 | 1 |