

Таблица Кэли

Составить таблицу Кэли структуры $(X, *)$, заданной на множестве пар $x_0 = (0, 0)$, $x_1 = (0, 1)$, $x_2 = (1, 0)$, $x_3 = (1, 1)$. Указано правило для умножения пар $a = (a_1, a_2)$ и $b = (b_1, b_2)$.

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| Задача Dm3.1. <i>Апанасевич Иван</i> $a * b = (a_2 - 1 b_2, a_1 b_2)$ | Задача Dm3.2. <i>Багаматов Гасан</i> $a * b = (a_1 b_2, a_2 b_1)$ | Задача Dm3.3. <i>Власов Владимир</i> $a * b = (a_2 b_1, a_1 - b_2)$ |
| Задача Dm3.4. <i>Гервальд Владислав</i> $a * b = (a_1 - b_2 , a_2 - b_1)$ | Задача Dm3.5. <i>Гудков Андрей</i> $a * b = (a_2 - b_1 , a_1 a_2 - b_1 b_2)$ | Задача Dm3.6. <i>Дейнеко Анастасия</i> $a * b = (a_1 a_2 - b_1 b_2 , a_2 b_1 - a_1 b_2)$ |
| Задача Dm3.7. <i>Зызва Анастасия Олеговна</i> $a * b = (a_2 b_1 - a_1 b_2 , a_1 b_1 - a_2 b_2)$ | Задача Dm3.8. <i>Китади Элие Камбомба</i> $a * b = (a_1 b_1 - a_2 b_2 , a_1 b_1 - b_2)$ | Задача Dm3.9. <i>Кузнецов Владислав</i> $a * b = (a_1 b_1 - b_2 , a_2 b_2 - b_1)$ |
| Задача Dm3.10. <i>Максимова Дарья</i> $a * b = (a_2 b_2 - b_1 , a_1 b_1 - a_2)$ | Задача Dm3.11. <i>Погодина Зоя Алексеевна</i> $a * b = (a_1 b_1 - a_2 , a_2 b_2 - a_1)$ | Задача Dm3.12. <i>Селиванов Александр</i> $a * b = (a_2 b_2 - a_1 , a_1 b_2)$ |
| Задача Dm3.13. <i>Сургучев Лев Сергеевич</i> $a * b = (a_2 - 1 b_2, a_1 b_2)$ | Задача Dm3.14. <i>Суханов Станислав</i> $a * b = (a_1 - 1 b_1, a_1 b_2)$ | Задача Dm3.15. <i>Терехова Маргарита</i> $a * b = (a_1 - 1 b_2, a_1 - b_2)$ |
| Задача Dm3.16. <i>Ухлинов Владимир</i> $a * b = (a_2 b_1, a_1 b_1 - a_2 b_2)$ | Задача Dm3.17. <i>Шилов Николай Ильич</i> $a * b = (a_1 b_1 - a_2 , a_1 b_2)$ | Задача Dm3.18. <i>Юркевич Владислав</i> $a * b = (a_1 b_2, a_1 b_1 - a_2)$ |

Dm3

Ответы.

Таблица Кэли

24-Sep-20

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| 1) | $x_0 \quad x_2 \quad x_0 \quad x_2$ | $x_0 \quad x_0 \quad x_0 \quad x_0$ | $x_0 \quad x_1 \quad x_0 \quad x_1$ |
| | $x_0 \quad x_0 \quad x_0 \quad x_0$ | $x_0 \quad x_0 \quad x_1 \quad x_1$ | $x_0 \quad x_1 \quad x_2 \quad x_3$ |
| | $x_0 \quad x_3 \quad x_0 \quad x_3$ | $x_0 \quad x_2 \quad x_0 \quad x_2$ | $x_1 \quad x_0 \quad x_1 \quad x_0$ |
| | $x_0 \quad x_1 \quad x_0 \quad x_1$ | $x_0 \quad x_2 \quad x_1 \quad x_3$ | $x_1 \quad x_0 \quad x_3 \quad x_2$ |

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| 2) | $x_0 \quad x_2 \quad x_0 \quad x_2$ | $x_0 \quad x_0 \quad x_0 \quad x_0$ | $x_0 \quad x_1 \quad x_0 \quad x_1$ |
| | $x_0 \quad x_0 \quad x_0 \quad x_0$ | $x_0 \quad x_0 \quad x_1 \quad x_1$ | $x_0 \quad x_1 \quad x_2 \quad x_3$ |
| | $x_0 \quad x_3 \quad x_0 \quad x_3$ | $x_0 \quad x_2 \quad x_0 \quad x_2$ | $x_1 \quad x_0 \quad x_1 \quad x_0$ |
| | $x_0 \quad x_1 \quad x_0 \quad x_1$ | $x_0 \quad x_2 \quad x_1 \quad x_3$ | $x_1 \quad x_0 \quad x_3 \quad x_2$ |

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| 3) | $x_0 \quad x_1 \quad x_0 \quad x_1$ | $x_0 \quad x_1 \quad x_0 \quad x_1$ | $x_0 \quad x_1 \quad x_0 \quad x_1$ |
| | $x_0 \quad x_0 \quad x_2 \quad x_3$ | $x_0 \quad x_1 \quad x_2 \quad x_3$ | $x_0 \quad x_1 \quad x_2 \quad x_3$ |
| | $x_1 \quad x_0 \quad x_1 \quad x_0$ | $x_1 \quad x_0 \quad x_1 \quad x_0$ | $x_1 \quad x_0 \quad x_1 \quad x_0$ |
| | $x_1 \quad x_0 \quad x_3 \quad x_2$ | $x_1 \quad x_0 \quad x_3 \quad x_2$ | $x_1 \quad x_0 \quad x_3 \quad x_2$ |

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| 4) | <table border="1"><tr><td>x_0</td><td>x_2</td><td>x_1</td><td>x_3</td></tr><tr><td>x_1</td><td>x_3</td><td>x_0</td><td>x_2</td></tr><tr><td>x_2</td><td>x_0</td><td>x_3</td><td>x_1</td></tr><tr><td>x_3</td><td>x_1</td><td>x_2</td><td>x_0</td></tr></table> | x_0 | x_2 | x_1 | x_3 | x_1 | x_3 | x_0 | x_2 | x_2 | x_0 | x_3 | x_1 | x_3 | x_1 | x_2 | x_0 |
| x_0 | x_2 | x_1 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_0 | x_2 | | | | | | | | | | | | | | |
| x_2 | x_0 | x_3 | x_1 | | | | | | | | | | | | | | |
| x_3 | x_1 | x_2 | x_0 | | | | | | | | | | | | | | |

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| 7) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_0</td><td>x_1</td><td>x_2</td><td>x_3</td></tr><tr><td>x_0</td><td>x_2</td><td>x_1</td><td>x_3</td></tr><tr><td>x_0</td><td>x_3</td><td>x_3</td><td>x_0</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_0 | x_1 | x_2 | x_3 | x_0 | x_2 | x_1 | x_3 | x_0 | x_3 | x_3 | x_0 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
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| x_0 | x_3 | x_3 | x_0 | | | | | | | | | | | | | | |

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| 10) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_2</td></tr><tr><td>x_1</td><td>x_3</td><td>x_3</td><td>x_1</td></tr><tr><td>x_0</td><td>x_0</td><td>x_3</td><td>x_3</td></tr><tr><td>x_1</td><td>x_3</td><td>x_2</td><td>x_0</td></tr></table> | x_0 | x_0 | x_2 | x_2 | x_1 | x_3 | x_3 | x_1 | x_0 | x_0 | x_3 | x_3 | x_1 | x_3 | x_2 | x_0 |
| x_0 | x_0 | x_2 | x_2 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_3 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_0 | x_3 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_2 | x_0 | | | | | | | | | | | | | | |

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| 13) | <table border="1"><tr><td>x_0</td><td>x_2</td><td>x_0</td><td>x_2</td></tr><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_0</td><td>x_3</td><td>x_0</td><td>x_3</td></tr><tr><td>x_0</td><td>x_1</td><td>x_0</td><td>x_1</td></tr></table> | x_0 | x_2 | x_0 | x_2 | x_0 | x_0 | x_0 | x_0 | x_0 | x_3 | x_0 | x_3 | x_0 | x_1 | x_0 | x_1 |
| x_0 | x_2 | x_0 | x_2 | | | | | | | | | | | | | | |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_0 | x_3 | x_0 | x_3 | | | | | | | | | | | | | | |
| x_0 | x_1 | x_0 | x_1 | | | | | | | | | | | | | | |

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| 16) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_0</td><td>x_1</td><td>x_2</td><td>x_3</td></tr><tr><td>x_0</td><td>x_0</td><td>x_1</td><td>x_1</td></tr><tr><td>x_0</td><td>x_1</td><td>x_3</td><td>x_2</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_0 | x_1 | x_2 | x_3 | x_0 | x_0 | x_1 | x_1 | x_0 | x_1 | x_3 | x_2 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_0 | x_1 | x_2 | x_3 | | | | | | | | | | | | | | |
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| 5) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_3</td></tr><tr><td>x_2</td><td>x_2</td><td>x_0</td><td>x_1</td></tr><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_3</td></tr><tr><td>x_3</td><td>x_3</td><td>x_1</td><td>x_0</td></tr></table> | x_0 | x_0 | x_2 | x_3 | x_2 | x_2 | x_0 | x_1 | x_0 | x_0 | x_2 | x_3 | x_3 | x_3 | x_1 | x_0 |
| x_0 | x_0 | x_2 | x_3 | | | | | | | | | | | | | | |
| x_2 | x_2 | x_0 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_0 | x_2 | x_3 | | | | | | | | | | | | | | |
| x_3 | x_3 | x_1 | x_0 | | | | | | | | | | | | | | |

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| 8) | <table border="1"><tr><td>x_0</td><td>x_1</td><td>x_0</td><td>x_1</td></tr><tr><td>x_0</td><td>x_3</td><td>x_0</td><td>x_3</td></tr><tr><td>x_0</td><td>x_1</td><td>x_3</td><td>x_2</td></tr><tr><td>x_0</td><td>x_3</td><td>x_3</td><td>x_0</td></tr></table> | x_0 | x_1 | x_0 | x_1 | x_0 | x_3 | x_0 | x_3 | x_0 | x_1 | x_3 | x_2 | x_0 | x_3 | x_3 | x_0 |
| x_0 | x_1 | x_0 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_3 | x_0 | x_3 | | | | | | | | | | | | | | |
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| 10) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_2</td></tr><tr><td>x_1</td><td>x_3</td><td>x_3</td><td>x_1</td></tr><tr><td>x_0</td><td>x_0</td><td>x_3</td><td>x_3</td></tr><tr><td>x_1</td><td>x_3</td><td>x_2</td><td>x_0</td></tr></table> | x_0 | x_0 | x_2 | x_2 | x_1 | x_3 | x_3 | x_1 | x_0 | x_0 | x_3 | x_3 | x_1 | x_3 | x_2 | x_0 |
| x_0 | x_0 | x_2 | x_2 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_3 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_0 | x_3 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_2 | x_0 | | | | | | | | | | | | | | |

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| 11) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_2</td><td>x_3</td><td>x_2</td><td>x_3</td></tr><tr><td>x_1</td><td>x_1</td><td>x_3</td><td>x_3</td></tr><tr><td>x_3</td><td>x_2</td><td>x_1</td><td>x_0</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_2 | x_3 | x_2 | x_3 | x_1 | x_1 | x_3 | x_3 | x_3 | x_2 | x_1 | x_0 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_2 | x_3 | x_2 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_1 | x_3 | x_3 | | | | | | | | | | | | | | |
| x_3 | x_2 | x_1 | x_0 | | | | | | | | | | | | | | |

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| 14) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_2</td></tr><tr><td>x_0</td><td>x_0</td><td>x_2</td><td>x_2</td></tr><tr><td>x_0</td><td>x_1</td><td>x_0</td><td>x_1</td></tr><tr><td>x_0</td><td>x_1</td><td>x_0</td><td>x_1</td></tr></table> | x_0 | x_0 | x_2 | x_2 | x_0 | x_0 | x_2 | x_2 | x_0 | x_1 | x_0 | x_1 | x_0 | x_1 | x_0 | x_1 |
| x_0 | x_0 | x_2 | x_2 | | | | | | | | | | | | | | |
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| 17) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_2</td><td>x_2</td><td>x_2</td><td>x_2</td></tr><tr><td>x_0</td><td>x_1</td><td>x_2</td><td>x_3</td></tr><tr><td>x_2</td><td>x_3</td><td>x_0</td><td>x_1</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_2 | x_2 | x_2 | x_2 | x_0 | x_1 | x_2 | x_3 | x_2 | x_3 | x_0 | x_1 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_2 | x_2 | x_2 | x_2 | | | | | | | | | | | | | | |
| x_0 | x_1 | x_2 | x_3 | | | | | | | | | | | | | | |
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| 6) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_2</td></tr><tr><td>x_0</td><td>x_0</td><td>x_1</td><td>x_3</td></tr><tr><td>x_0</td><td>x_1</td><td>x_0</td><td>x_3</td></tr><tr><td>x_2</td><td>x_3</td><td>x_3</td><td>x_0</td></tr></table> | x_0 | x_0 | x_0 | x_2 | x_0 | x_0 | x_1 | x_3 | x_0 | x_1 | x_0 | x_3 | x_2 | x_3 | x_3 | x_0 |
| x_0 | x_0 | x_0 | x_2 | | | | | | | | | | | | | | |
| x_0 | x_0 | x_1 | x_3 | | | | | | | | | | | | | | |
| x_0 | x_1 | x_0 | x_3 | | | | | | | | | | | | | | |
| x_2 | x_3 | x_3 | x_0 | | | | | | | | | | | | | | |

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| 9) | <table border="1"><tr><td>x_0</td><td>x_2</td><td>x_1</td><td>x_3</td></tr><tr><td>x_0</td><td>x_3</td><td>x_1</td><td>x_2</td></tr><tr><td>x_0</td><td>x_2</td><td>x_3</td><td>x_1</td></tr><tr><td>x_0</td><td>x_3</td><td>x_3</td><td>x_0</td></tr></table> | x_0 | x_2 | x_1 | x_3 | x_0 | x_3 | x_1 | x_2 | x_0 | x_2 | x_3 | x_1 | x_0 | x_3 | x_3 | x_0 |
| x_0 | x_2 | x_1 | x_3 | | | | | | | | | | | | | | |
| x_0 | x_3 | x_1 | x_2 | | | | | | | | | | | | | | |
| x_0 | x_2 | x_3 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_3 | x_3 | x_0 | | | | | | | | | | | | | | |

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| 12) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_0</td><td>x_2</td><td>x_0</td><td>x_2</td></tr><tr><td>x_2</td><td>x_3</td><td>x_2</td><td>x_3</td></tr><tr><td>x_2</td><td>x_1</td><td>x_2</td><td>x_1</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_0 | x_2 | x_0 | x_2 | x_2 | x_3 | x_2 | x_3 | x_2 | x_1 | x_2 | x_1 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_0 | x_2 | x_0 | x_2 | | | | | | | | | | | | | | |
| x_2 | x_3 | x_2 | x_3 | | | | | | | | | | | | | | |
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| 15) | <table border="1"><tr><td>x_0</td><td>x_3</td><td>x_0</td><td>x_3</td></tr><tr><td>x_0</td><td>x_3</td><td>x_0</td><td>x_3</td></tr><tr><td>x_1</td><td>x_0</td><td>x_1</td><td>x_0</td></tr><tr><td>x_1</td><td>x_0</td><td>x_1</td><td>x_0</td></tr></table> | x_0 | x_3 | x_0 | x_3 | x_0 | x_3 | x_0 | x_3 | x_1 | x_0 | x_1 | x_0 | x_1 | x_0 | x_1 | x_0 |
| x_0 | x_3 | x_0 | x_3 | | | | | | | | | | | | | | |
| x_0 | x_3 | x_0 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_0 | x_1 | x_0 | | | | | | | | | | | | | | |
| x_1 | x_0 | x_1 | x_0 | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 18) | <table border="1"><tr><td>x_0</td><td>x_0</td><td>x_0</td><td>x_0</td></tr><tr><td>x_1</td><td>x_1</td><td>x_1</td><td>x_1</td></tr><tr><td>x_0</td><td>x_2</td><td>x_1</td><td>x_3</td></tr><tr><td>x_1</td><td>x_3</td><td>x_0</td><td>x_2</td></tr></table> | x_0 | x_0 | x_0 | x_0 | x_1 | x_1 | x_1 | x_1 | x_0 | x_2 | x_1 | x_3 | x_1 | x_3 | x_0 | x_2 |
| x_0 | x_0 | x_0 | x_0 | | | | | | | | | | | | | | |
| x_1 | x_1 | x_1 | x_1 | | | | | | | | | | | | | | |
| x_0 | x_2 | x_1 | x_3 | | | | | | | | | | | | | | |
| x_1 | x_3 | x_0 | x_2 | | | | | | | | | | | | | | |

Dm3 файл 3ccb-AnsE