# Тест программы для проверки монотонности функций алгебры логики

## Монотонные функции

### Функция 1

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

0

(1,1,0)

000

(0,1,1)

1

(1,0,0)

0

(0,0,1)

1

Функция является МОНОТОННОЙ.

### Функция 2

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(1,1,0)

1

(0,1,1)

1

(0,1,0)

0

(1,0,0)

0

(0,0,1)

0

(0,0,0)

0

Функция является МОНОТОННОЙ.

### Функция 3

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

1

(0,0,0)

0

(1,1,0)

1

(0,1,1)

1

(1,0,0)

0

(0,0,1)

1

Функция является МОНОТОННОЙ.

### Функция 4

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

0

(1,1,0)

0

(0,1,1)

0

(1,0,0)

0

(0,0,1)

0

Функция является МОНОТОННОЙ.

### Функция 5

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

0

(1,1,0)

1

(0,1,1)

1

(1,0,0)

0

(0,0,1)

1

Функция является МОНОТОННОЙ.

### Функция 6

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

0

(1,1,0)

1

(0,1,1)

1

(1,0,0)

1

(0,0,1)

1

Функция является МОНОТОННОЙ.

### Функция 7

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

0

(0,1,0)

0

(0,0,0)

0

(1,1,0)

0

(0,1,1)

1

(1,0,0)

0

(0,0,1)

0

Функция является МОНОТОННОЙ.

### Функция 8

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

1

(0,0,0)

0

(1,1,0)

1

(0,1,1)

1

(1,0,0)

1

(0,0,1)

0

Функция является МОНОТОННОЙ.

### Функция 9

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

0

(0,0,0)

0

(1,1,0)

0

(0,1,1)

0

(1,0,0)

0

(0,0,1)

0

Функция является МОНОТОННОЙ.

### Функция 10

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

1

(0,0,0)

1

(1,1,0)

1

(0,1,1)

1

(1,0,0)

1

(0,0,1)

1

Функция является МОНОТОННОЙ.

### Функция 11

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

1

(1,0,0,0)

0

(0,0,0,1)

1

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 12

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

0

(1,0,0,1)

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(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

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(1,1,0,1)

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(1,1,1,0)

0

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 13

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

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(0,1,1,0)

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(1,0,0,1)

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(1,0,1,0)

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(0,1,0,1)

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(1,0,1,1)

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(1,1,0,1)

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(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 11

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 |  |
| 0 | 0 | 0 | 1 |  |
| 0 | 0 | 1 | 0 |  |
| 0 | 0 | 1 | 1 |  |
| 0 | 1 | 0 | 0 |  |
| 0 | 1 | 0 | 1 |  |
| 0 | 1 | 1 | 0 |  |
| 0 | 1 | 1 | 1 |  |
| 1 | 0 | 0 | 0 |  |
| 1 | 0 | 0 | 1 |  |
| 1 | 0 | 1 | 0 |  |
| 1 | 0 | 1 | 1 |  |
| 1 | 1 | 0 | 0 |  |
| 1 | 1 | 0 | 1 |  |
| 1 | 1 | 1 | 0 |  |
| 1 | 1 | 1 | 1 |  |

Связи, по которым определяется монотонность:

(0,0,1,0)

$

(0,0,0.0)

$

(0,1,0,0)

$

(1,0,0,0)

$

(0,0,0,1)

$

(0,1,1,0)

$

(1,0,0,1)

$

(1,0,1,0)

$

(0,1,0,1)

$

(1,0,1,1)

$

(1,1,0,1)

$

(1,1,1,0)

$

(0,1,1,1)

$

(1,1,1,1)

$

(1,1,0,0)

$

(0,0,1,1)

$

Функция является МОНОТОННОЙ.

### Функция 14

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

1

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

1

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 15

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

1

(1,0,0,0)

1

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

1

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 16

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 17

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

1

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

0

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 18

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

0

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

0

(1,1,0,1)

0

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 19

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

1

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

1

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

1

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 20

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

1

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

## Не монотонные функции

### Функция 31

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

0

(0,0,0)

1

(1,1,0)

1

(0,1,1)

1

(1,0,0)

0

(0,0,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 32

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

0

(0,1,0)

1

(0,0,0)

0

(1,1,0)

0

(0,1,1)

1

(1,0,0)

0

(0,0,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 33

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

1

(0,0,0)

0

(1,1,0)

1

(0,1,1)

1

(1,0,0)

0

(0,0,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 34

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

1

(1,1,0)

1

(0,1,1)

1

(1,0,0)

1

(0,0,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 35

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

0

(0,0,0)

0

(1,1,0)

0

(0,1,1)

0

(1,0,0)

1

(0,0,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 36

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

1

(0,0,0)

0

(1,1,0)

0

(0,1,1)

0

(1,0,0)

0

(0,0,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 37

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

0

(0,0,0)

0

(1,1,0)

1

(0,1,1)

0

(1,0,0)

0

(0,0,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 38

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

1

(0,0,0)

0

(1,1,0)

0

(0,1,1)

1

(1,0,0)

0

(0,0,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 39

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(1,1,1)

0

(1,0,1)

0

(0,1,0)

1

(0,0,0)

0

(1,1,0)

1

(0,1,1)

00

(1,0,0)

0

(0,0,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 40

Таблица истинности:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(1,1,1)

1

(1,0,1)

1

(0,1,0)

1

(0,0,0)

1

(1,1,0)

0

(0,1,1)

1

(1,0,0)

1

(0,0,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 41

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

0

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 42

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

1

(0,0,0.0)

1

(0,1,0,0)

0

(1,0,0,0)

1

(0,0,0,1)

1

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

1

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

1

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 43

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

0

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

0

(1,1,0,1)

1

(1,1,1,0)

0

(0,1,1,1)

0

(1,1,1,1)

0

(1,1,0,0)

0

(0,0,1,1)

0

Функция является НЕ МОНОТОННОЙ.

### Функция 44

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

1

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

1

(1,1,0,1)

0

(1,1,1,0)

1

(0,1,1,1)

0

(1,1,1,1)

1

(1,1,0,0)

0

(0,0,1,1)

1

Функция является НЕ МОНОТОННОЙ.

### Функция 45

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

1

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

0

(1,1,0,1)

1

(1,1,1,0)

1

(0,1,1,1)

0

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 46

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 1 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

1

(1,0,0,0)

1

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

1

(1,1,0,1)

0

(1,1,1,0)

1

(0,1,1,1)

0

(1,1,1,1)

1

(1,1,0,0)

1

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 47

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

0

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

0

(1,0,1,1)

0

(1,1,0,1)

0

(1,1,1,0)

0

(0,1,1,1)

0

(1,1,1,1)

0

(1,1,0,0)

0

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 48

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(0,0,1,0)

1

(0,0,0.0)

1

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

1

(0,1,1,0)

0

(1,0,0,1)

0

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

0

(1,1,1,0)

1

(0,1,1,1)

0

(1,1,1,1)

0

(1,1,0,0)

1

(0,0,1,1)

0

Функция является МОНОТОННОЙ.

### Функция 49

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(0,0,1,0)

0

(0,0,0.0)

1

(0,1,0,0)

0

(1,0,0,0)

0

(0,0,0,1)

0

(0,1,1,0)

1

(1,0,0,1)

1

(1,0,1,0)

1

(0,1,0,1)

1

(1,0,1,1)

0

(1,1,0,1)

0

(1,1,1,0)

0

(0,1,1,1)

0

(1,1,1,1)

0

(1,1,0,0)

1

(0,0,1,1)

1

Функция является МОНОТОННОЙ.

### Функция 50

Таблица истинности:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 | 0 |

Связи, по которым определяется монотонность:

(0,0,1,0)

1

(0,0,0.0)

1

(0,1,0,0)

1

(1,0,0,0)

1

(0,0,0,1)

1

(0,1,1,0)

0

(1,0,0,1)

1

(1,0,1,0)

0

(0,1,0,1)

1

(1,0,1,1)

1

(1,1,0,1)

0

(1,1,1,0)

1

(0,1,1,1)

0

(1,1,1,1)

0

(1,1,0,0)

1

(0,0,1,1)

0