|  |  |  |  |
| --- | --- | --- | --- |
| **FUNKCJA LOGICZNA** | **ZAPIS MATEMATYCZNY FUNKCJI** | **SYMBOL BRAMKI LOGICZNEJ** | **TABLICA PRAWDY** |
| A, B – wejścia bramki Y – wyjście bramki |
| **NOT**(negacja) | $$Y=\overbar{A}$$ |  |

|  |  |
| --- | --- |
| **A** | **Y** |
| 0 | 1 |
| 1 | 0 |

 |
| **OR**(suma logiczna) | $$Y=A+B$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

 |
| **NOR**(negacja sumy) | $$Y=\overbar{A+B}$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

 |
| **AND**(iloczyn logiczny) | $$Y=A∙B$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

 |
| **NAND**(negacja iloczynu) | $$Y=\overbar{A∙B}$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

 |
| **XOR**(alternatywa wykluczająca) | $$Y=A⨁B$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

 |
| **XNOR**(negacja alternatywy) | $$Y=\overbar{A⨁B}$$ |  |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Y** |
| 0 | 0 |  |
| 0 | 1 |  |
| 1 | 0 |  |
| 1 | 1 |  |

 |