Name:

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| **E** | **Logic vocab** | | |
| **Boolean algebra** | | | Mathematical expression of logic circuits |
| **Logic gate** | | A component which takes in one or two binary inputs and produces a single binary output | |
| **Logic circuit** | | A circuit made of a combination of logic gates | |
| **Truth table** | | A table of inputs and outputs for a logic gate system | |

Programming: Operations

|  |  |
| --- | --- |
| **A** | **Z** |
| 0 | 1 |
| 1 | 0 |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Z** |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

|  |  |  |
| --- | --- | --- |
| **A** | **B** | **Z** |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **F** | | **Logic gates** | | | |
| **OR gate** | or gate | |  | **AND gate** | and gate | |  | **NOT gate** | not gate |  |

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| --- | --- | --- | --- |
| **C** | **Types of operator** | | |
| **Arithmetic operator** | | An operator which turns two numbers into a single number with a mathematical process | \*\*, /, %, //, \*, +, - |
| **Assignment operator** | | An operator which assigns a value to a name | =,  ⇒ |
| **Boolean operator** | | An operator which compares Boolean values | AND, OR, NOT |
| **Comparison operator** | | An operator which compares two numbers | >, <, >=, <=, ==, != |

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| **A** | **Key vocab** | |
| **Operand** | | A number (or string or Boolean) which is to be operated on |
| **String manipulation** | | Operating on strings |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **D** | | **Order of operations** | | | |
| **1** | **Brackets** | | Whatever is in the brackets is resolved first | | |
| **2** | **Unary** | | An operation with only one *operand* | | |
| **3** | **Indices** | | Raising to the power of a number | | |
| **4** | **Division** | | Including *quotient* and *modulus* division | | |
| **5** | **Multiplication** | | | | × or \* |
| **6** | **Addition** | | | | + |
| **7** | **Subtraction** | | | | - |
| **8** | **Comparison** | | | An operation which returns a Boolean by comparing two operands | |
| **9** | **Boolean** | | | An operation which returns a Boolean by comparing two Booleans | |
| **10** | **Assignment** | | | An operation which assigns a value to a name | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B** | **Unfamiliar operations** | | | |
| **Concatenation** | | Joins two strings together | “:” + “-)” | |
| **Exponentiation** | | Raises one number to the power of another | | 2\*\*3 |
| **Modulus / mod** | | Returns the remainder after division | 10 % 3 = 1 | |
| **Quotient / floor division** | | Returns the whole number part of the division | 10 // 3 = 3 | |
| **Unary** | | Only has one operand | -7 | |