Number Systems

## Properties of Numbers

|  |  |
| --- | --- |
| Associative law for addition |  |
| Existence of additive identity |  |
| Existence of additive inverse |  |
| Commutative law of addition |  |
| Associative law for multiplication |  |
| Existence of multiplication identity |  |
| Existence of multiplicative inverse |  |
| Commutative law for multiplication |  |
| Distributive law of multiplication over addition |  |
| Distributive law of multiplication over subtraction |  |
| Distributive law of division over addition |  |
| Distributive law of division over subtraction |  |

## Types of Number

Table Common Sets

|  |  |  |  |
| --- | --- | --- | --- |
| Set | Meaning | Example | Description/Example |
|  | The natural numbers |  | Can sometimes be assumed to include 0, especially by computer scientists |
|  | The integers |  |  |
|  | The positive integers |  |  |
|  | The rational numbers |  |  |
|  | The real numbers |  |  |
|  | Complex numbers |  |  |

Note that: