

Latex I Typography

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September 1, 2023

The Pigeonhole Principle is the $k = 1$ case of the Extended Pigeonhole Principle.

Set: A collection of distinct objects. A set can be expressed as a set containing 2, 5, and 7, or as a set with one member, 2, 5, 7, where the members are distinct from each other.

Member: An element belonging to a set. The pigeonhole principle asserts that sets must be distinct from each other, as seen in the example of people and days of the week.

$P = \text{Annie, Batul, Charlie, Deja, Evelyn, Fawwaz, Gregoire, Hoon}$ $D = \text{Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday}$

Cardinality: The number of elements in set A. The number of members of a finite set X is called its cardinality or size

Mapping: A relationship between elements of two sets. A function $f : X \rightarrow Y$ is sometimes called a mapping from X to Y, and f is said to map an element.

Equal: Having the same value or quantity. Theorem 2.4 states that when two integers, m and n, are squared and one result is added, the resulting number is $2k + 1$.

Not equal: Having different values or quantities. If we want to specify that A 50 essential discrete mathematics for computer science is a subset of B, but is definitely not equal to B

Floor: The greatest integer less than or equal to x. If x is any real number, we write $\lfloor x \rfloor$ for the greatest integer less than or equal to x.

Ceiling: The smallest integer greater than or equal to x.

Fraction: A number that represents a part of a whole. A fraction with the same value but a smaller numerator and a smaller denominator. In 2.7, the square root of 2 is irrational.

Sequence: An ordered list of elements. A sequence of terms can be denoted by a repeated variable with different numerical subscripts, algebraic expressions.