

# Sample Document Using the Glossaries Package With Xindy

Nicola Talbot

November 2, 2022

## 1 Karl Friedrich Gauss

This is a section on **Karl Friedrich Gauss**. This section spans several pages.

---

This paragraph has been shoved to the bottom of the page using a rule. This paragraph spans a page break for testing purposes to ensure the glossary entry

in this paragraph has the correct location. Here's the glossary entry: **Gaussian function**.

This page talks about **Gaussian integers**. Since it's the principle definition, the user-defined hyperbfit format is used.

The section on **Gauss** ends here.

## 2 Series Expansions

This section is about series expansions. It mentions **Colin Maclaurin** and **Brook Taylor**. It also discusses **Taylor's theorem** which is related to the **Taylor series**. The **Maclaurin series** is a special case of the **Taylor series**.

## 3 Archimedes' principle

This section discusses **Archimedes' principle** which was introduced by **Archimedes of Syracuse**.

## 4 Another section

This section covers **Ernst Mach** who introduced the **Mach number**. It also mentions **André-Marie Ampère** after whom the SI unit **ampere** is named. It then discusses **Sir Francis Galton** and **Thomas Robert Malthus**. Finally it mentions **John Loudon McAdam**.

This page discusses [Quinn McNemar](#) who introduced [McNemar's test](#) and [Giuseppe Peano](#) who discovered [Peano's curve](#).

## Glossary

### A

#### ampere

SI unit of electric current named after [Ampère](#). [Three](#)

#### Ampère, André-Marie

French mathematician and physicist. [Three](#), [Four](#)

#### Archimedes of Syracuse

Greek mathematician. [Three](#), [Four](#)

#### Archimedes' principle

Principle that if a body is submerged in a fluid it experiences upthrust equal to the weight of the displaced fluid. Named after [Archimedes](#). [Three](#)

### G

#### Galton, Sir Francis

English anthropologist. [Three](#)

#### Gauss, Karl Friedrich

German mathematician. [One-Three](#)

#### Gaussian function

A function of the form:

$$f(x) = a \exp\left(-\frac{(x-b)^2}{2c^2}\right)$$

for some constants  $a$ ,  $b$  and  $c$ . [Two](#)

#### Gaussian integer

Complex number where both real and imaginary parts are integers. [Two](#)

### M

#### Mach number

Ratio of the speed of a body in a fluid to the speed of sound in that fluid named after [Mach](#). [Three](#)

**Mach, Ernst**

Czech/Austrian physicist and philosopher. [Three](#), [Four](#)

**Maclaurin series**

Series expansion. [Three](#), [Five](#), *see* [Taylor's theorem](#)

**Maclaurin, Colin**

Scottish mathematician best known for the [Maclaurin series](#). [Three](#)

**Malthus, Thomas Robert**

English mathematician, sociologist and classicist. [Three](#)

**McAdam, John Loudon**

Scottish engineer. [Three](#)

**McNemar, Quinn**

Mathematician who introduced [McNemar's test](#). This entry has the number list suppressed.

**McNemar's test**

A nonparametric test introduced by [McNemar](#) in 1947. [Four](#), [Five](#)

**P****Peano, Giuseppe**

Italian mathematician. [Four](#), [Five](#)

**Peano's curve**

A space-filling curve discovered by [Peano](#). [Four](#)

**T****Taylor series**

Series expansion. [Three](#), *see* [Taylor's theorem](#)

**Taylor, Brook**

English mathematician. [Three](#)

**Taylor's theorem**

Theorem expressing a function  $f(x)$  as the sum of a polynomial and a remainder:

$$f(x) = f(a) + f'(a)(x - a) + f''(a)(x - a)^2/2! + \cdots + R_n$$

If  $n \rightarrow \infty$  the expansion is a [Taylor series](#) and if  $a = 0$ , the series is called a [Maclaurin series](#). [Three](#)