

Example Presentation

Aaditya Neupane

31.07.2024

Contents of This Presentation

- 1 Introduction
- 2 Some Basic Math Formula
- 3 Integration and Differentiation
- 4 Vector and Matrix
- 5 Sin and Cos function Graphs

- 1. This page is for contents
- 2. Explain about the contents
- 3. Next slide is Introduction

[1]

Using LaTeX to Create Math formulas, referencing,
drawing, writing, and presentation.

[2]

Some Basic Math Formula

1 Quadratic Formula $ax^2 + bx + c$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

2 Area of a Circle

$$A = \pi r^2$$

3 Trigonometric Formulas

$\sin(\theta) = \frac{\text{opposite}}{\text{hypotenuse}}$	$\csc(\theta) = \frac{\text{hypotenuse}}{\text{opposite}}$
$\cos(\theta) = \frac{\text{adjacent}}{\text{hypotenuse}}$	$\sec(\theta) = \frac{\text{hypotenuse}}{\text{adjacent}}$
$\tan(\theta) = \frac{\text{opposite}}{\text{adjacent}}$	$\cot(\theta) = \frac{\text{adjacent}}{\text{opposite}}$

Tabelle: Trigonometric Formulas

1 Integrals

$$\int_a^b f(x) dx = F(b) - F(a)$$

2 Partial Derivative

Example of a partial derivative equation: For the equation:

$$f(x, y) = x^2y + y^3.$$

Derivative of f with respect to x is:

$$\frac{\partial f}{\partial x} = 2xy \quad (1)$$

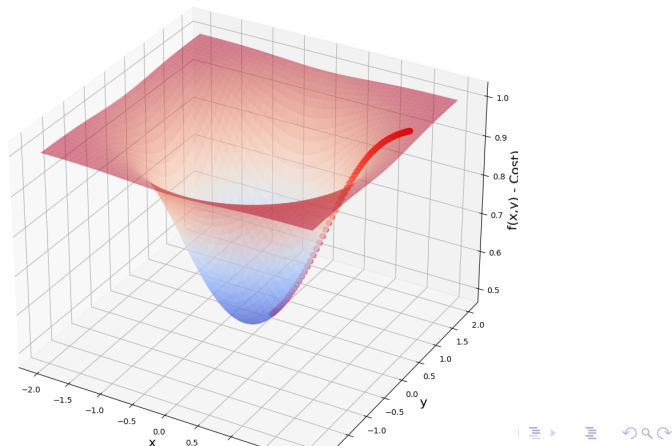
Derivative of f with respect to y is:

$$\frac{\partial f}{\partial y} = x^2 + 3y^2 \quad (2)$$

Integration and Differentiation

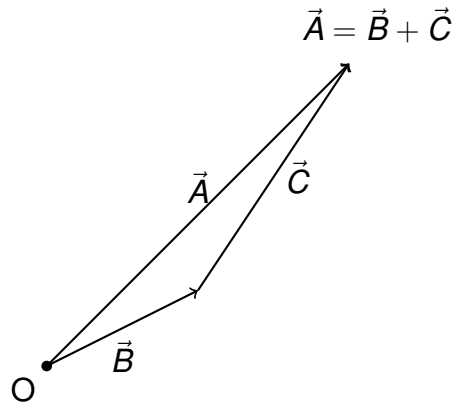
3 Example of Gradient Descent with scatter points in 3D

** This image was uploaded, not made using LaTeX



Vector and Matrix

1 Vector

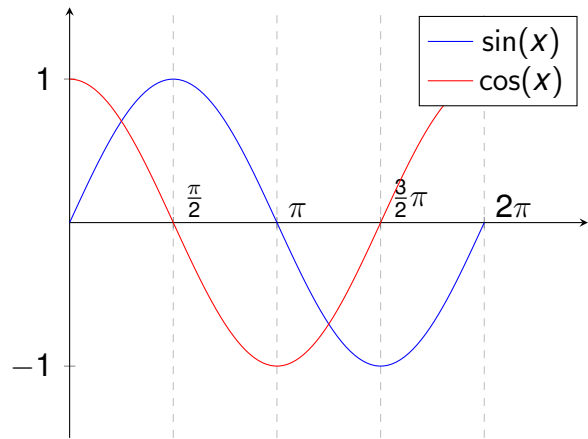


2 Matrix

Example of a 3x3 Matrix:

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

Sin and Cos function Graphs



References

- [1] I. Pufé, *Nachhaltigkeit*, 3. Aufl. München: UVK/Lucius, 2017, Online; accessed 07.01.2021. Adresse: <http://uvk-lucius.de/nachhaltigkeit/>.

References

- [2] S. Bützler und H. Steib, *Milchsonderbeihilfe, Traktorendemo und Berichterstattung*,
<https://www.agrarheute.com/tier/rind/milchsonderbeihilfe-vorschuesse-fristende-ausgezahlt-532373>; <https://www.thueringer-allgemeine.de/leben/vermishtes/mehr-als-200-traktoren-in-bad-berka-erwartet-id225372509.html>;
https://www.thueringer-allgemeine.de/img/incoming/crop225372459/9882607816-w820-cv16_9-q85/Am-1.jpg, Online; accessed 07.01.2021, 2020. Adresse:
<http://www.agrarheute.com/>.