

# A small mathematical dictionary: English-Swedish TO BE UPDATED!!!

September 11, 2017

## 1 Chapter 11

### 11.1 Sequences

- Sequence = Följd
- Increasing/decreasing = Växande/Avtagande
- Limit = Gränsvärde
- Convergent/divergent = Konvergent/Divergent
- Squeezing theorem = Instängningssatsen
- Bounded below/above = Begränsad uppifrån/nerifrån

### 11.2-11.6 Series

- Series = Talserier
- Geometric series = Geometrisk serie
- Divergence test = Divergestest
- Harmonic series = Harmonisk serie ( $\sum_{n=1}^{\infty} \frac{1}{n}$ )
- Integral test = Integraltest
- Comparison test = Jämförelsetest
- Limit comparison test = Gränsvärdetestet
- Alternating series (test) = Alternerande serie(stest)
- Absolute convergence = Absolut konvergens
- Ratio test = Kvottest

## 11.8-11.11 Power series and Taylor series

- Power series = Potensserie
- Power series centred in  $a$  = Potensserie centerad vid  $a$
- Variable = Variabel
- Coefficient = Koefficient
- Radius of convergence = Konvergensradie
- Interval of convergence = Konvergensintervall
- Maclaurin series = Maclaurinserie
- Taylor series (of the function  $f$  at  $a$ ) = Taylorserie (av funktionen  $f$  vid  $a$ )
- Remainder = Rest
- Taylor's inequality = Taylorsolikhet
- Binomial series = Binomialserie
- Binomial coefficient = Binomialkoefficient

## 2 Chapter 13 Curves and their properties

### 13.1-13.2 Vector functions, curves and derivatives

- Vector valued function = Vektorvärda funktion
- Curve = Kurv
- Component = Komponent
- Parametric equation = Parametrisk ekvation
- Derivative = Derivat
- Integral = Integral
- Tangent line = Tangentlinje
- Tangent vector = Tangentvektor
- Unit tangent vector  $\mathbf{T}$  = Enhetstangentvektor  $\mathbf{T}$

### 13.3 Arc length and curvature

- Curve length = Kurvlängd
- Arc length = Kurvlängdsfunktion
- Arc length parametrization = Kurvlängdsparametrisering
- Smooth kurv = Glatt/Slät kurv
- Curvature = Krökning
- Normal vector = Normalvektor
- Unit normal vector  $\mathbb{N}$  = Enhetsnormalvektor  $\mathbb{N}$
- (Unit) Binormal vector  $\mathbb{B}$  = (Enhets)Binormalvektor  $\mathbb{B}$
- Orthogonal = Ortogonal
- Normal plane = Normalplan
- Osculating plane = Oskulerande plan
- Osculating circle = Oskulerande cirkel

### 13.4 Motion in space

- Velocity = Hastigh
- Speed = Fart
- Acceleration = Acceleration
- Angle = Vinkel