

## Key concepts for 10.6, 11.1, 11.2

- To be able to understand how a quadratic surface (kvadratisk flate) looks like from the equation of the surface.

- Ellipsoid:

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

- Hyperbolic paraboloid:

$$\frac{y^2}{b^2} - \frac{x^2}{a^2} = \frac{z}{c}.$$

- Elliptical cone:

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = \frac{z^2}{c^2}.$$

- Hyperboloid of one sheet (énkappet hyperboloide):

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1.$$

- Hyperboloid of two sheets (tokappet hyperboloide):

$$-\frac{x^2}{a^2} - \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

- Elliptical paraboloid:

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = \frac{z}{c}.$$

- Vector-valued functions (vektor-valuerte funksjoner): Definitions of limits, continuity and differentiation.

- Integrals of vector functions: Antiderivative, definite integral, indefinite integral.