



Norwegian University of Science
and Technology
Department of Mathematical
Sciences

MA1201 Linear Algebra and Geometry

Exercise set 12

Glossary

Engelsk	Norsk
conic section	kjeglesnitt
hyperbola	hyperbel
parabola	parabel
ellipse	ellipse
quadratic form	kvadratisk form

Compulsory exercises

Hand in your solutions to these exercises. All answers must be justified.

Chapter 7.3 - Quadratic forms

Exercise 1 Do exercise 1 in chapter 7.3 of Elementary Linear Algebra.

Exercise 2 Do exercise 11 and 12 in chapter 7.3 of Elementary Linear Algebra.

Exercise 3 Do exercise 15 in chapter 7.3 of Elementary Linear Algebra.

Appendix B - Complex numbers

Exercise 4 Find all the complex solutions to $z^4 = -16$. Write them both in rectangular and polar form, and draw them in the complex plane.