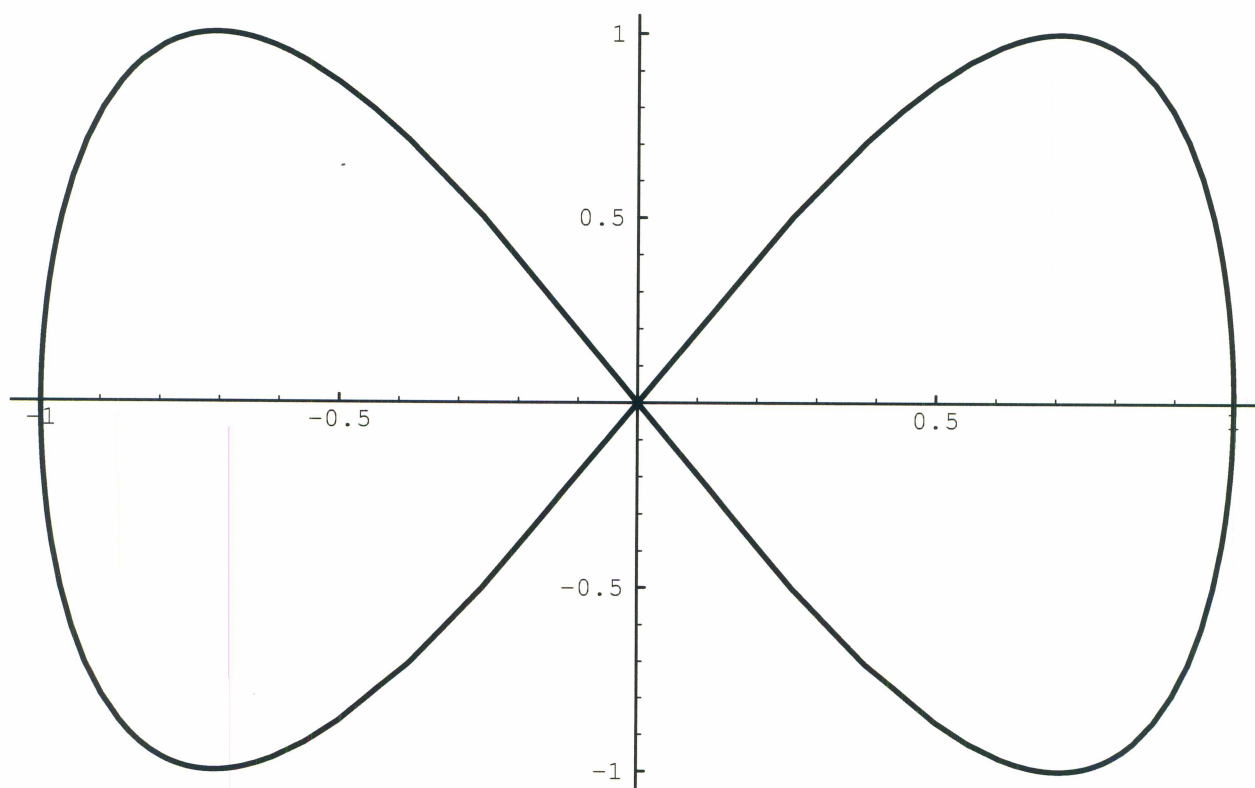
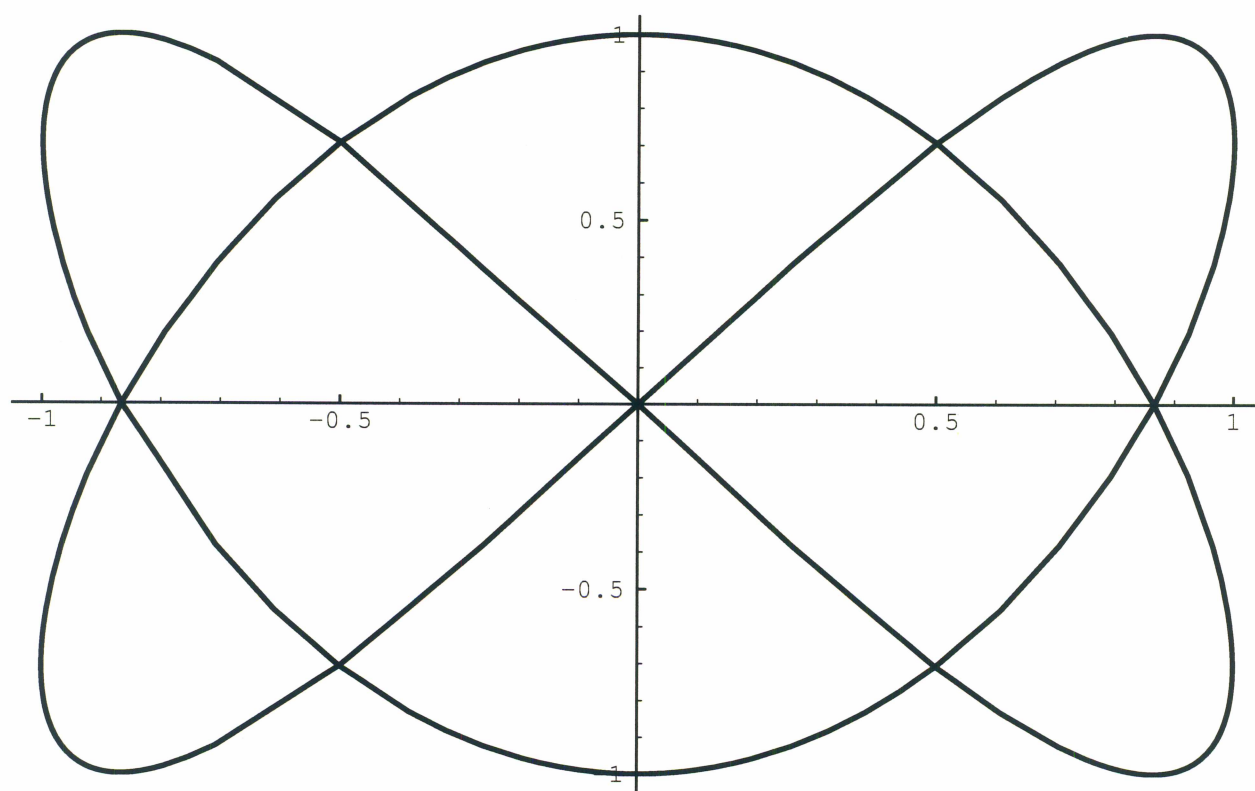
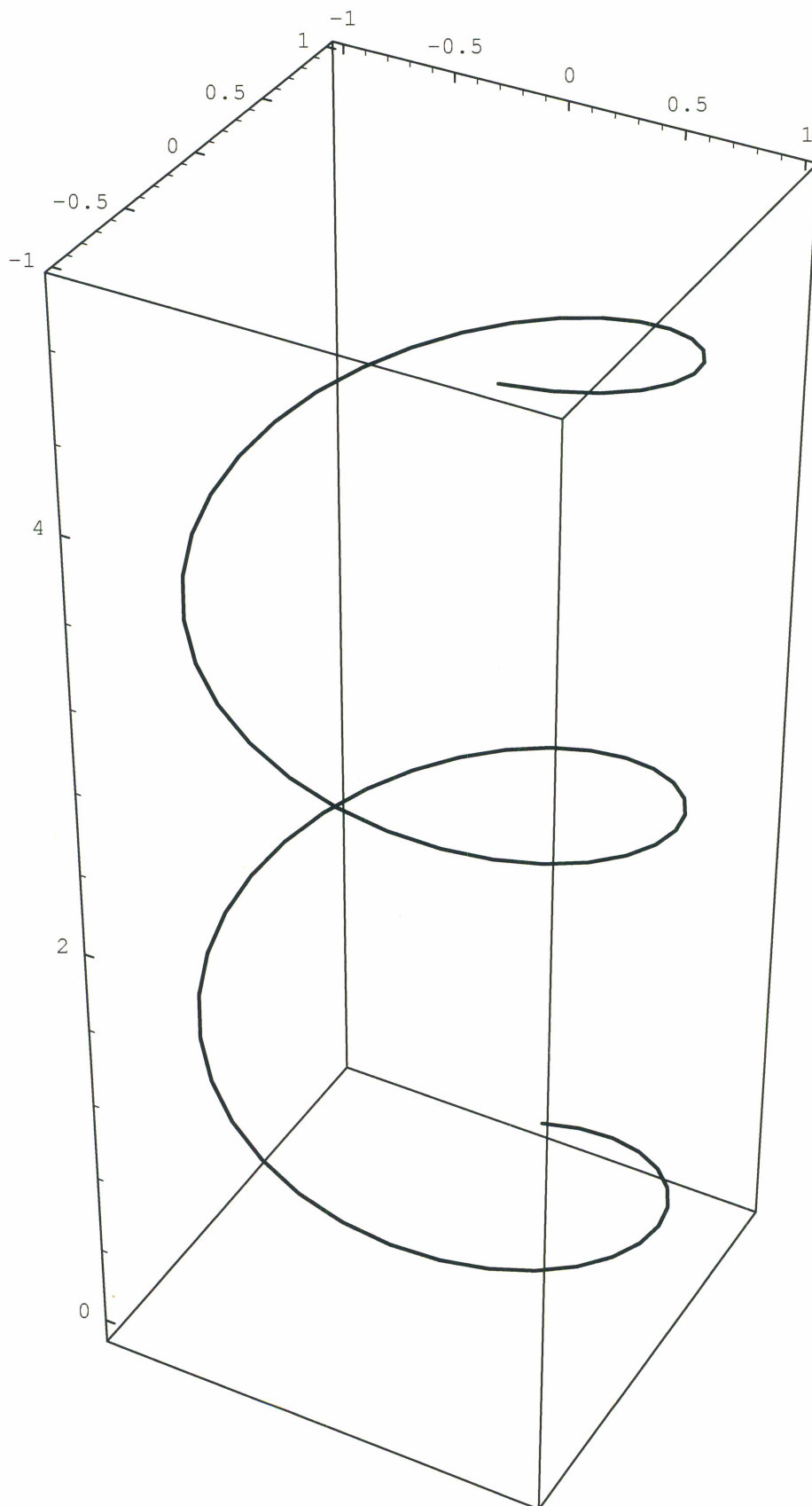
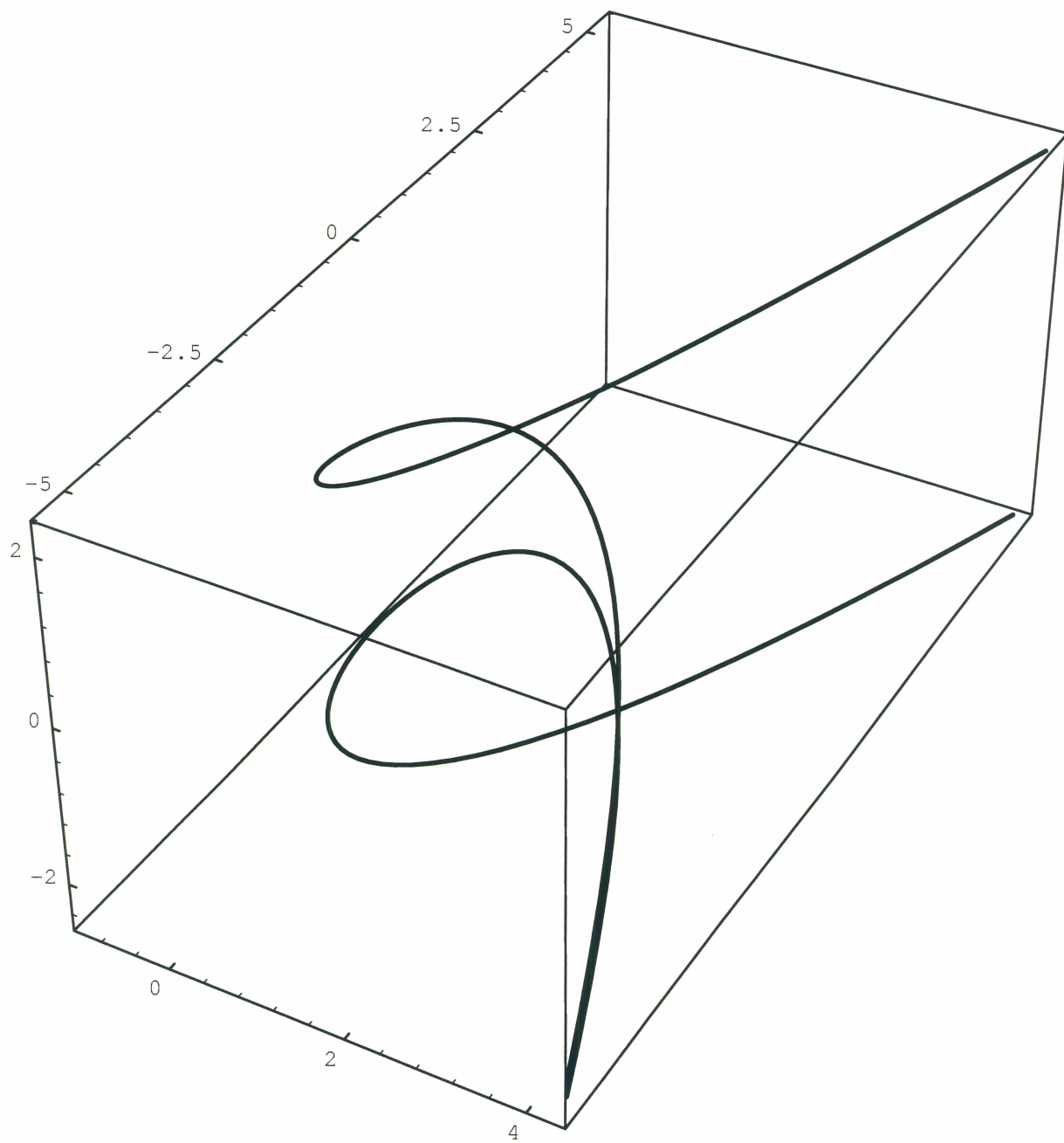
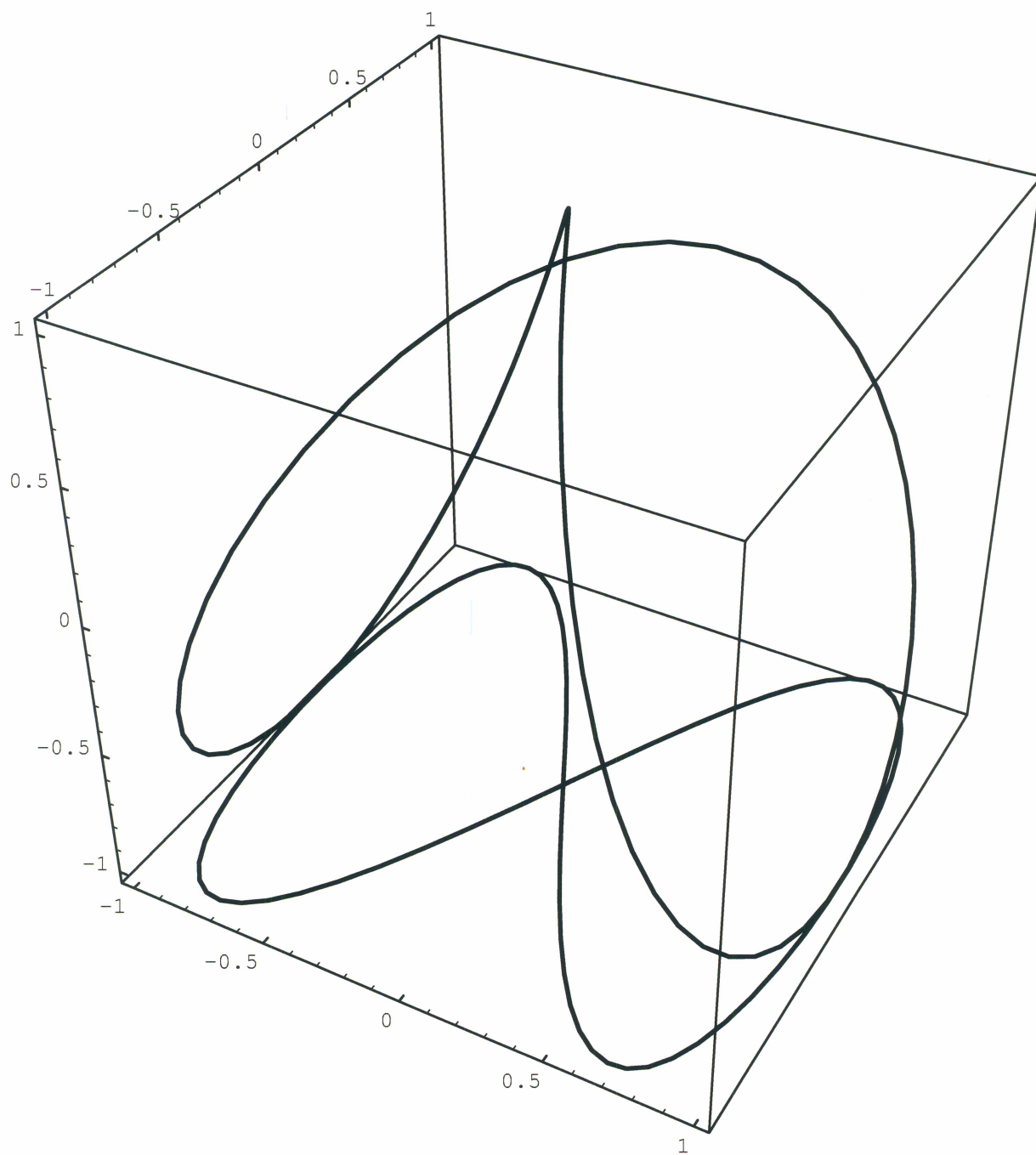


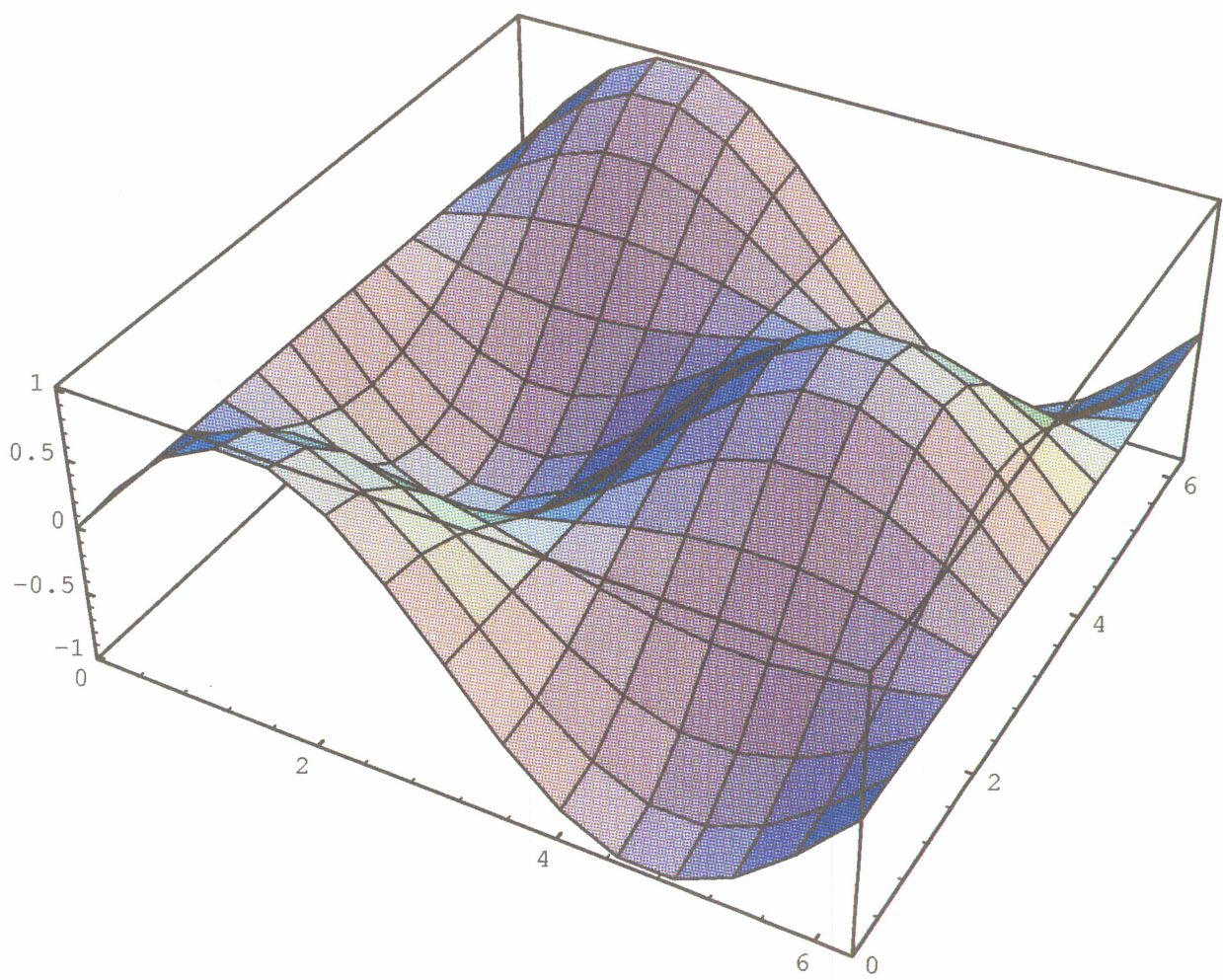


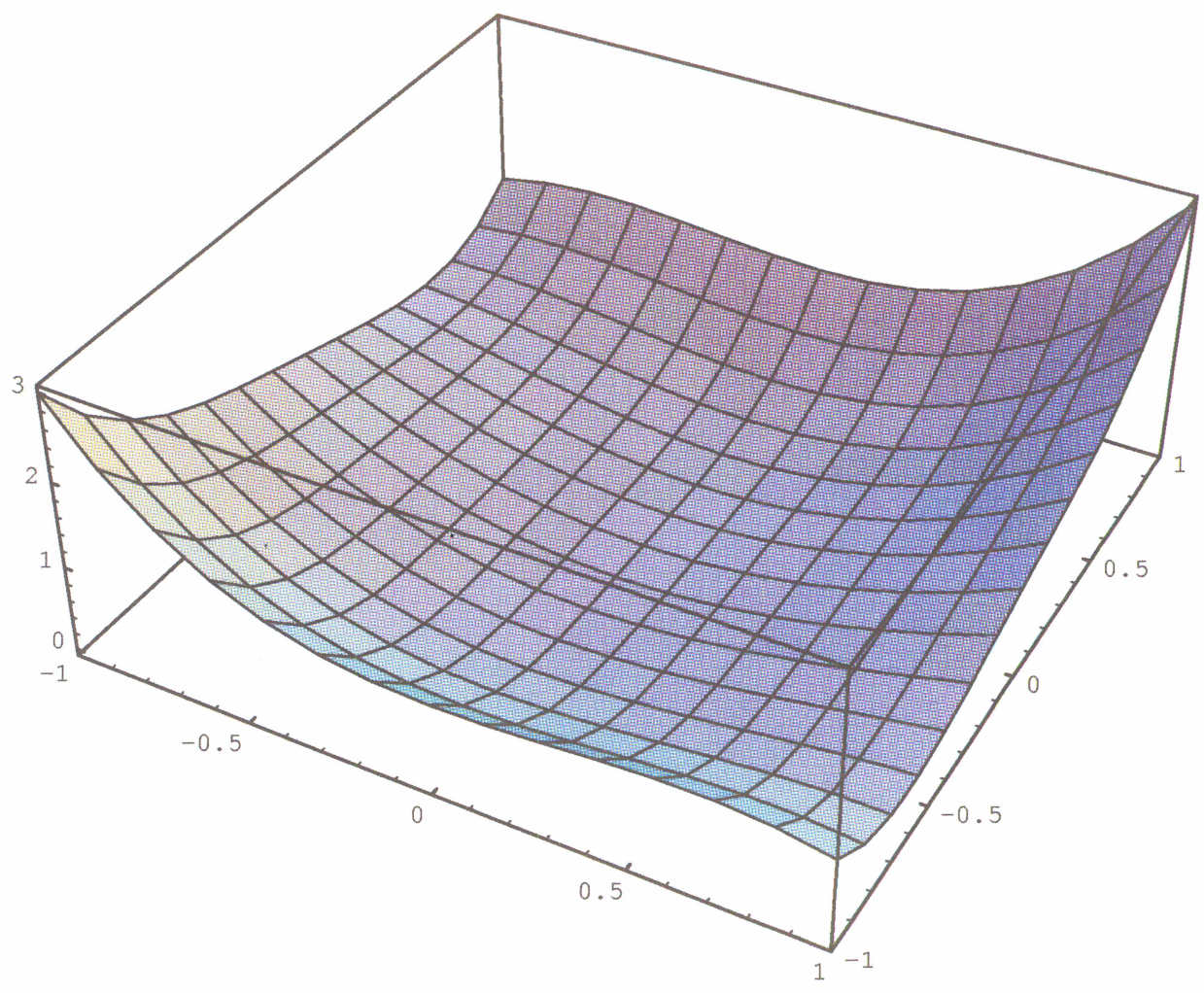


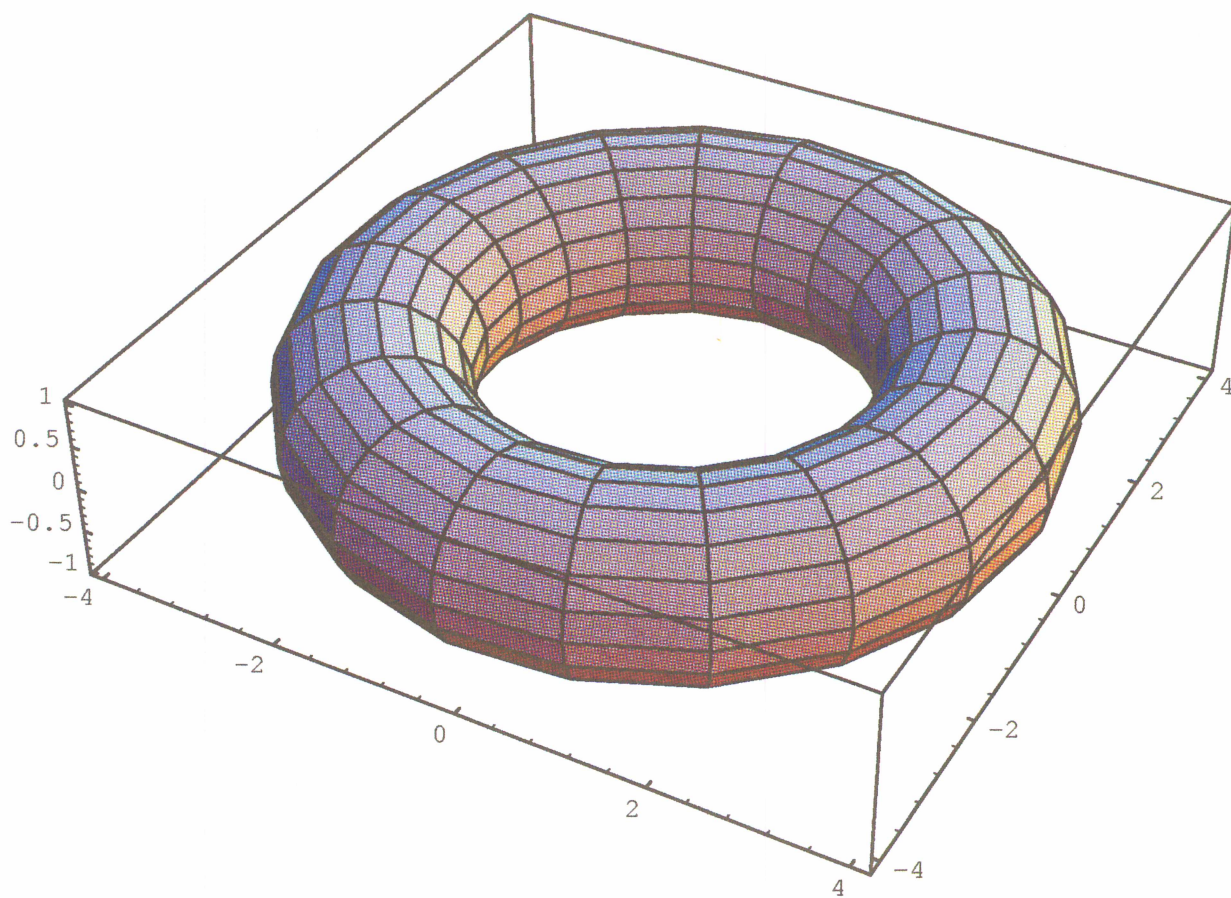


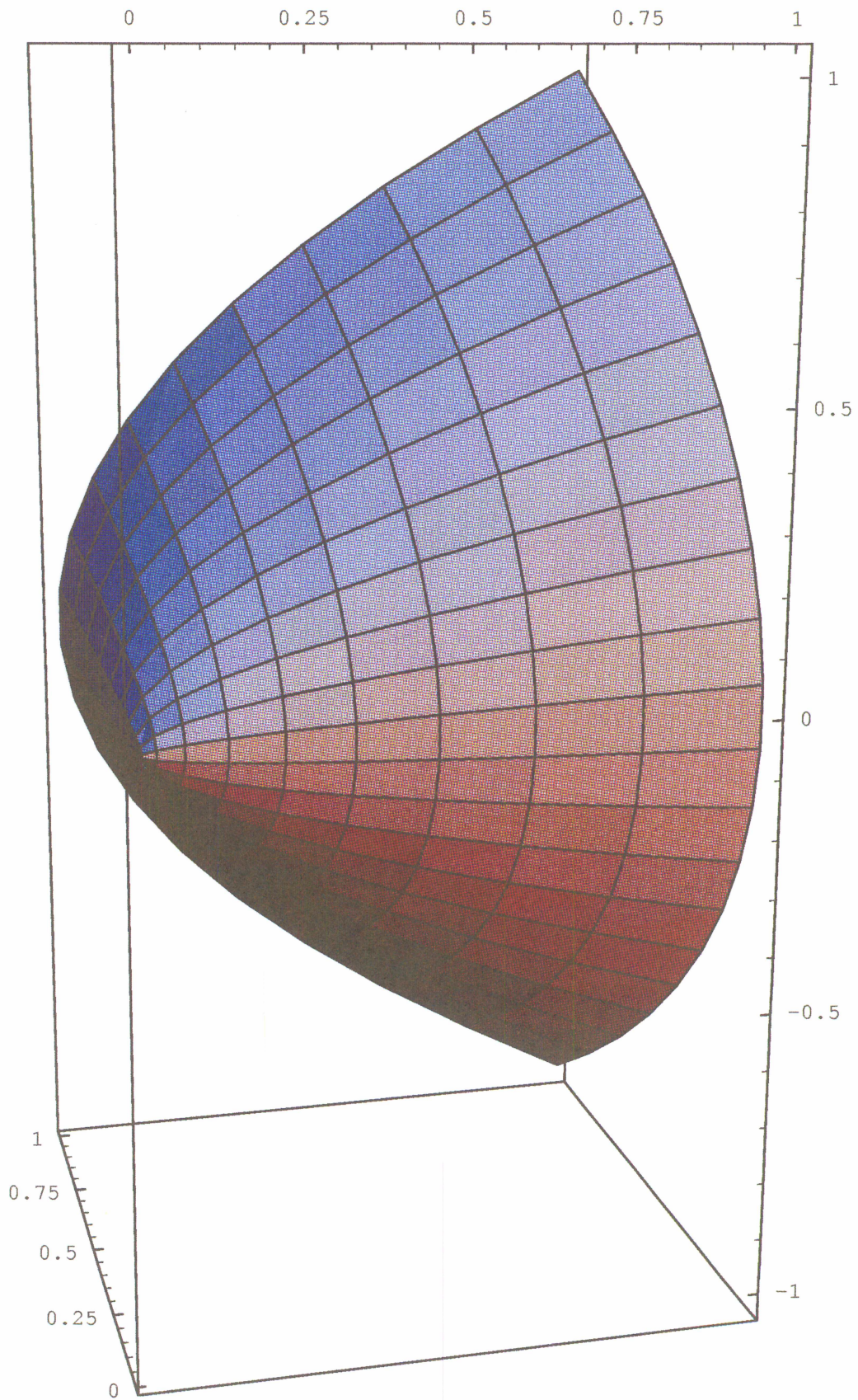




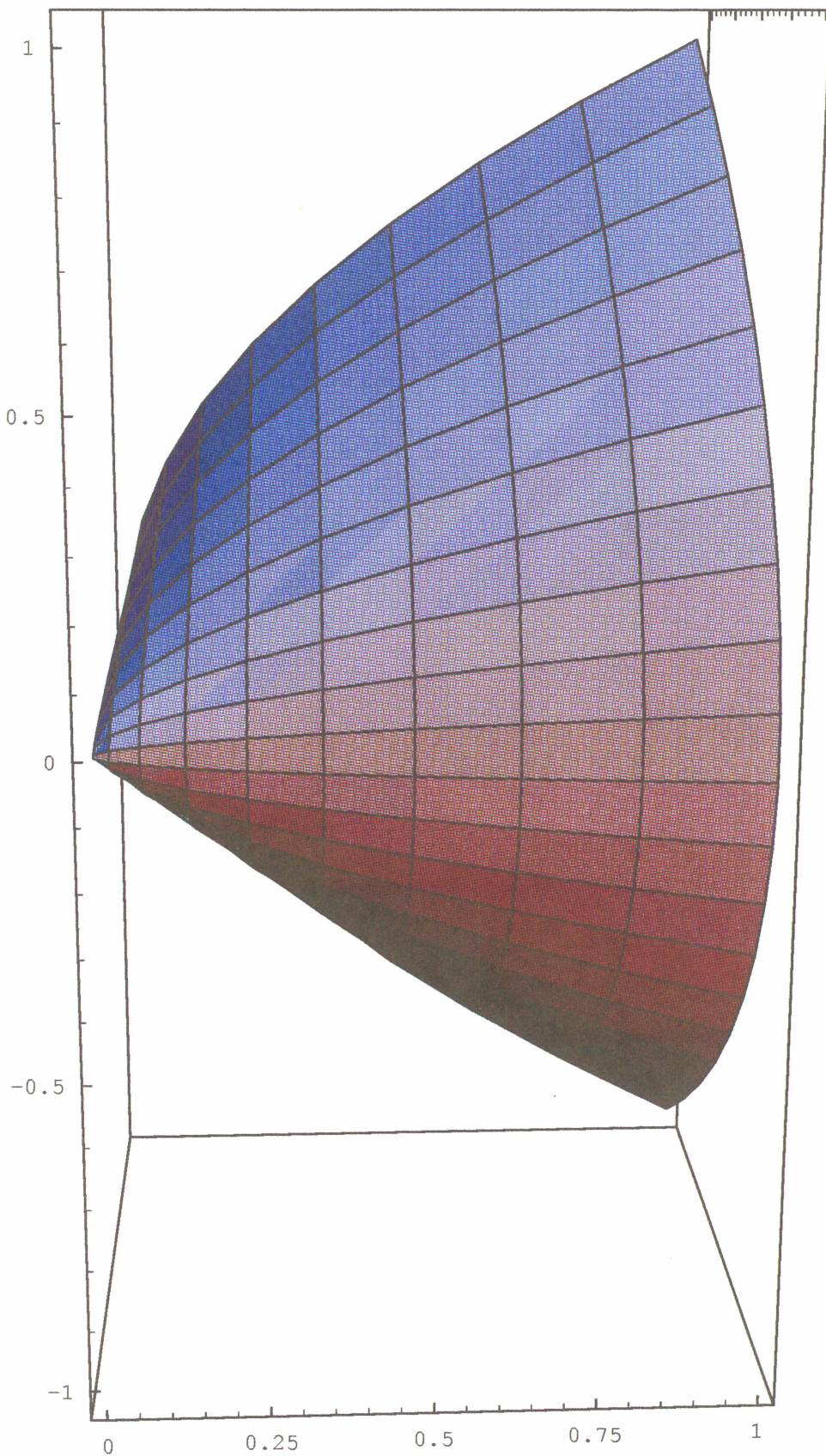


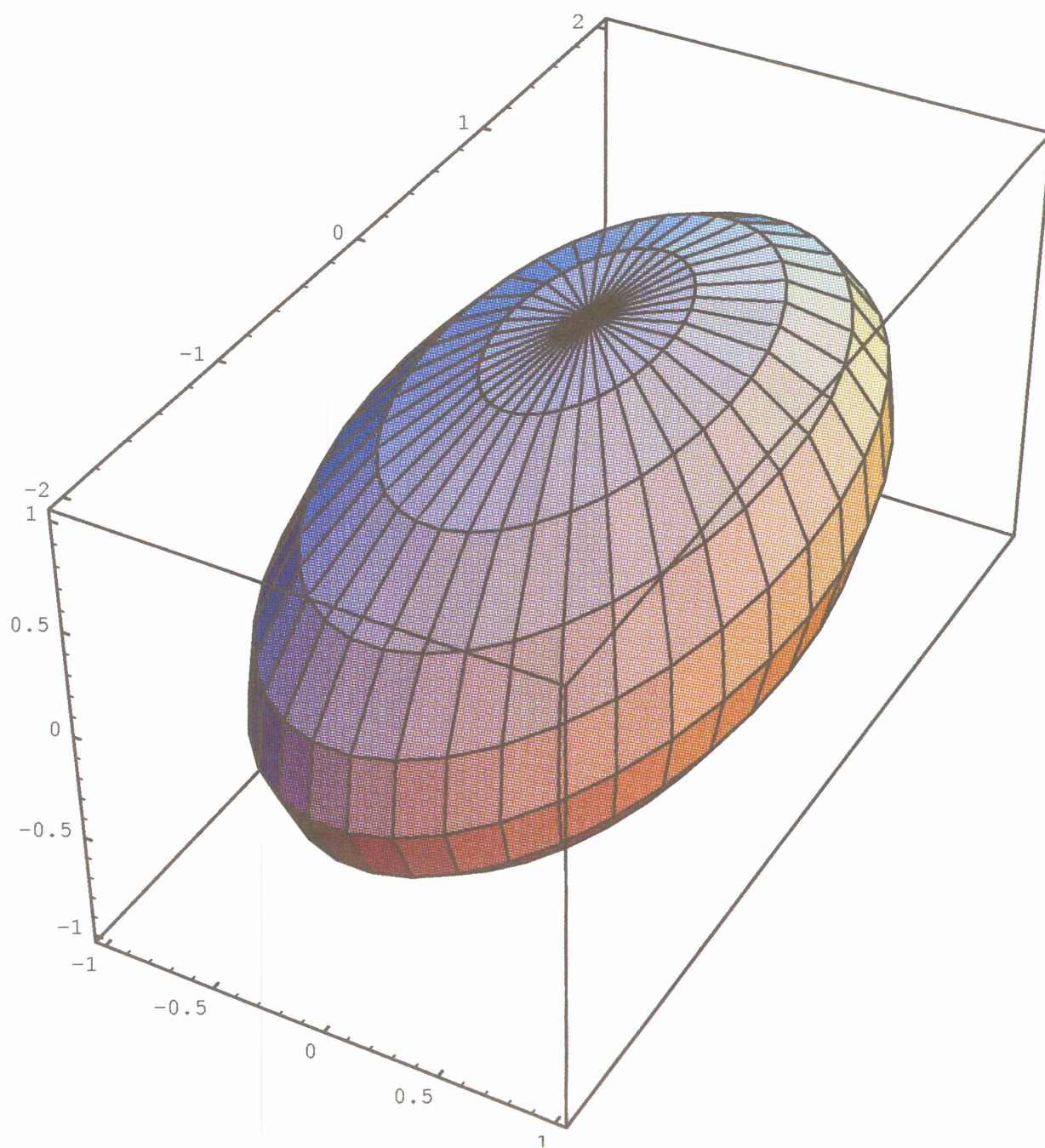


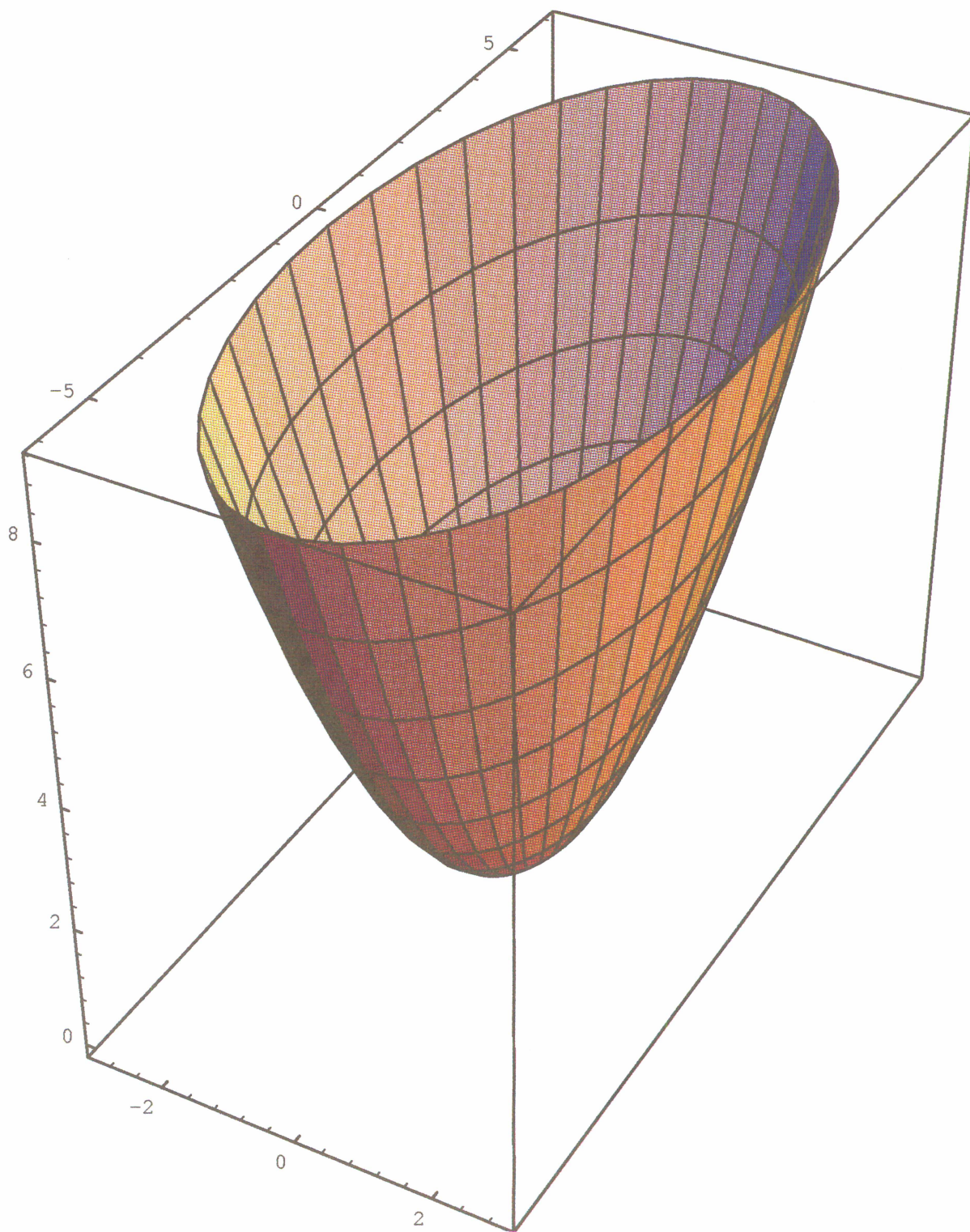


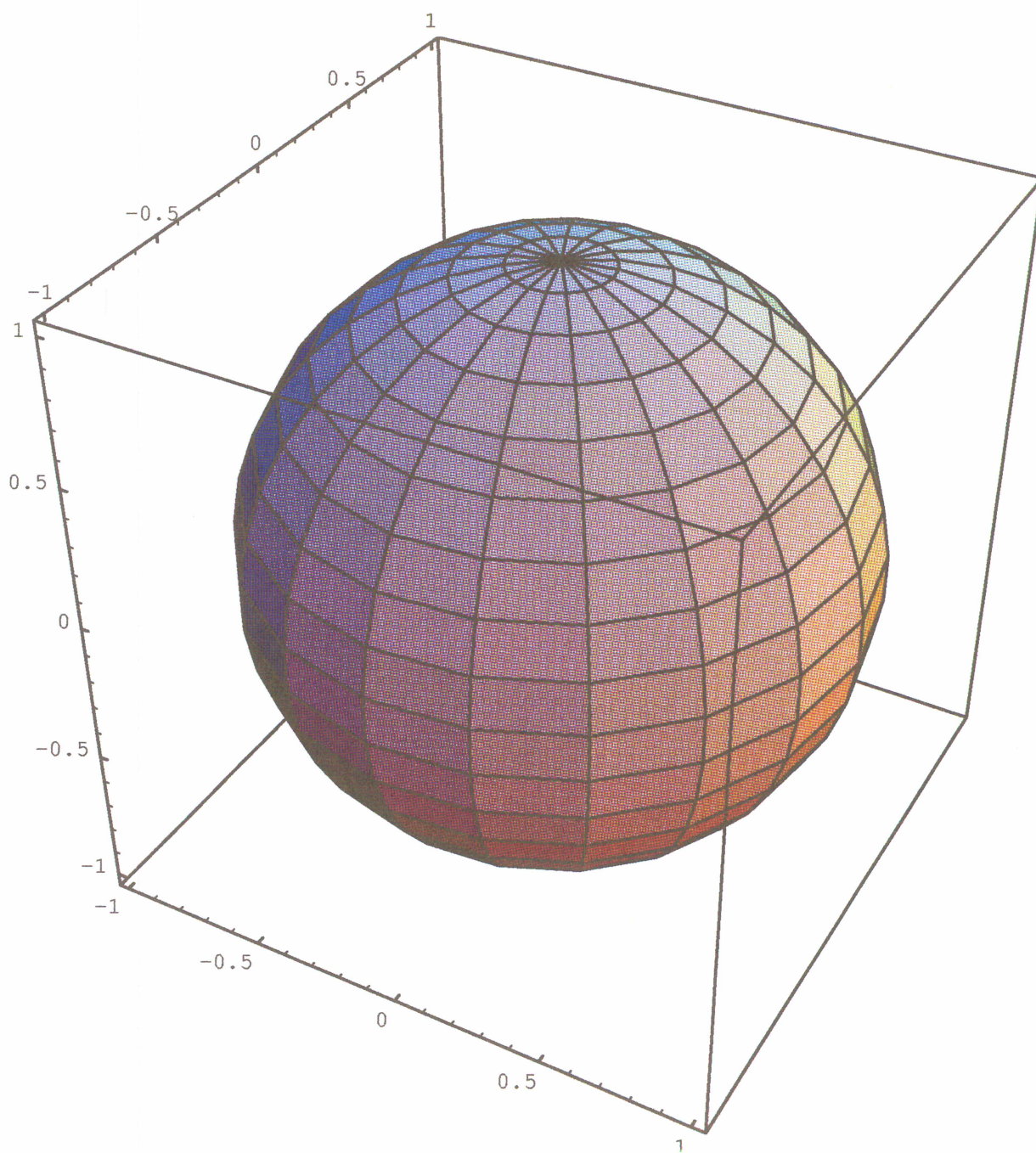


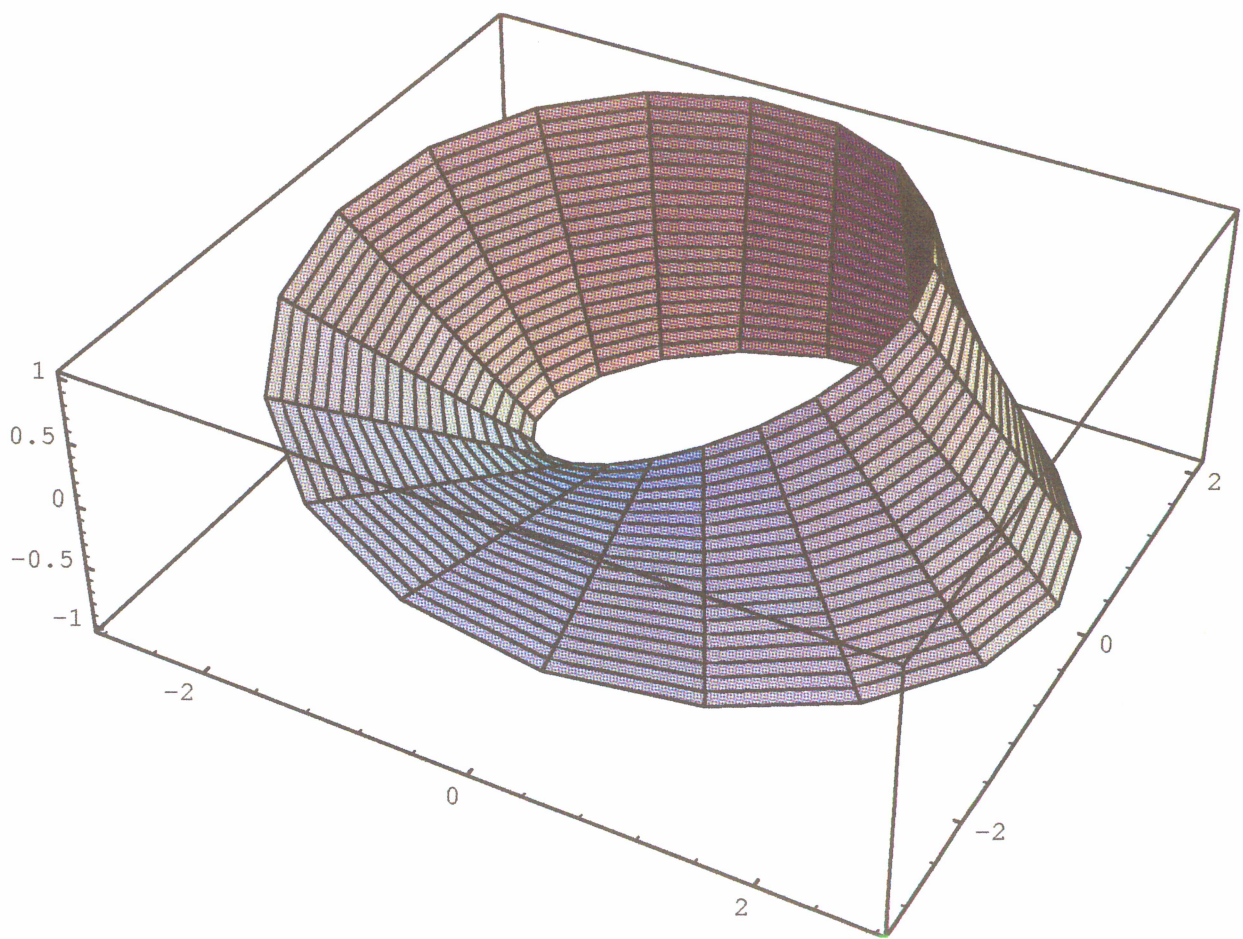
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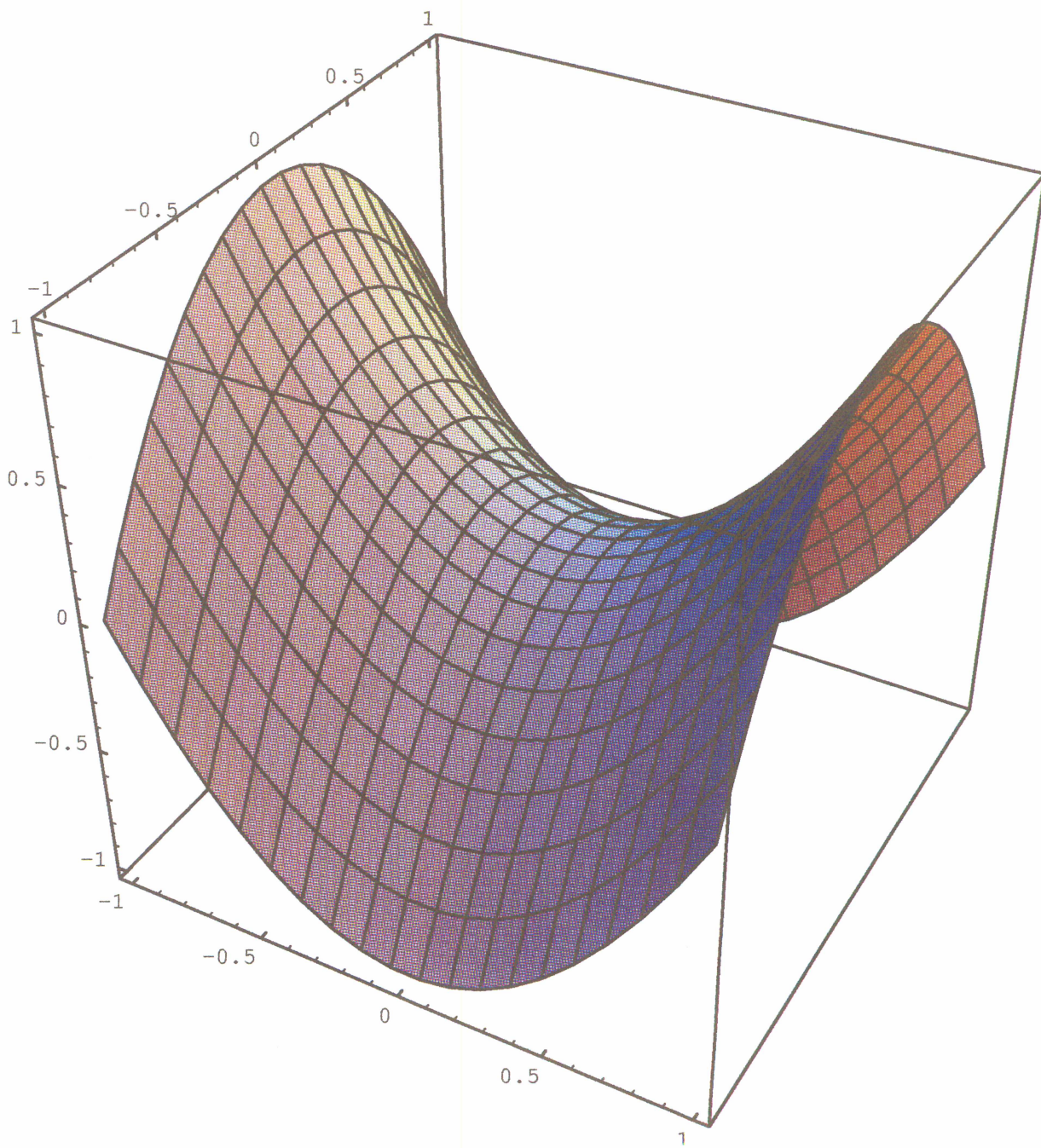


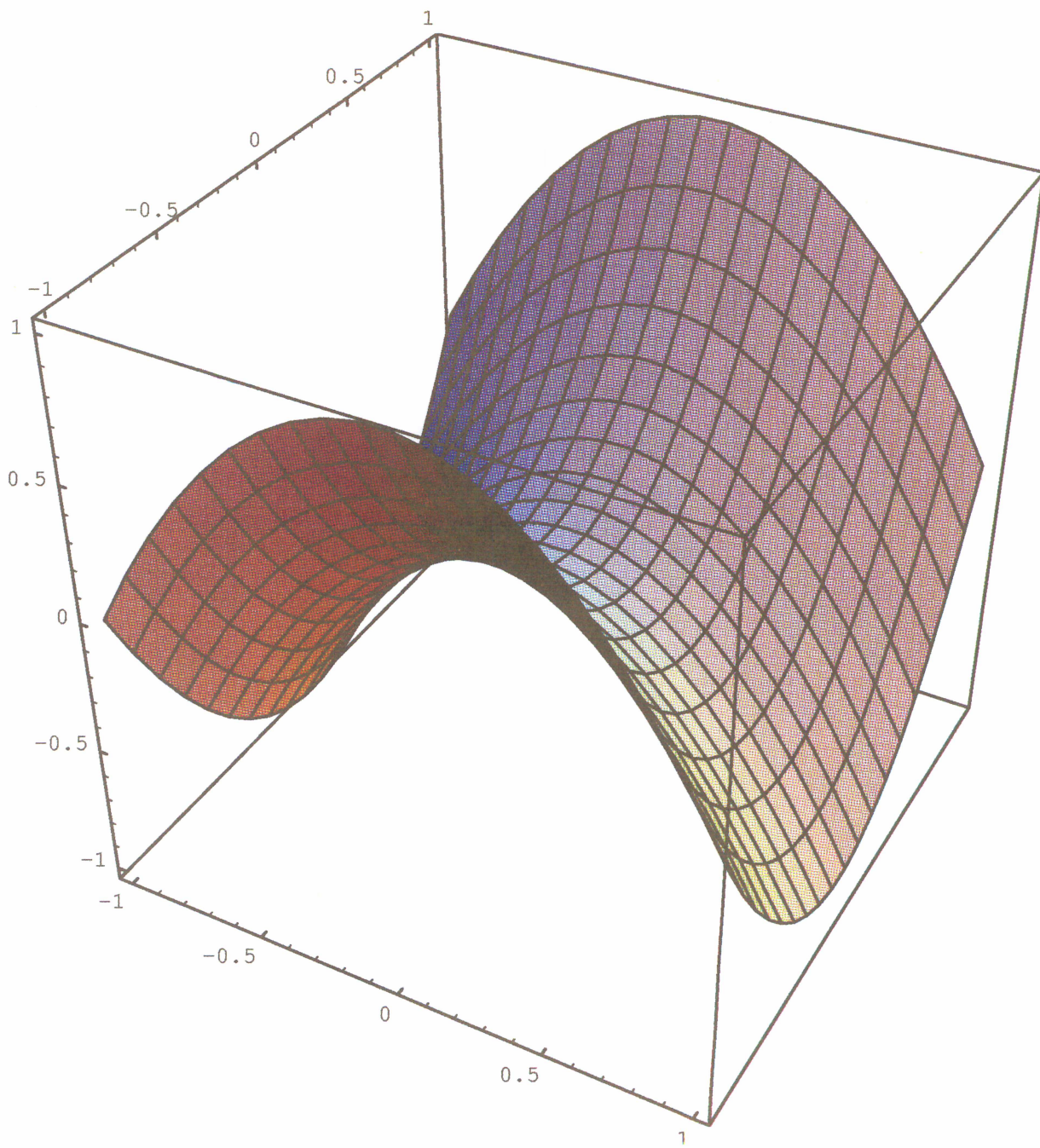


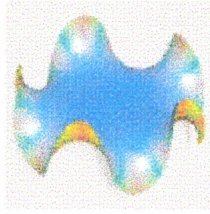






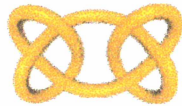






Geometri 1.

- The most exciting topic of Mathematics!
- The interplay between geometry and topology is but the most fruitful and important development in the field of Mathematics in this century!
- The most beautiful and aesthetically pleasing mathematical subject. E.g. try to click [here](#) for an example prepared by Jakob Grove using [Mathematica](#).



Indhold:

- Differentialgeometri for kurver og flader i det 3-dimensionale rum, herunder kurveteoriens hovedsætning, Gausskrumning, isometrier, geodætiske kurver og Gauss-Bonnet's sætning.

Lærebøger:

- Manfredo P. doCarmo: "Differential Geometry of Curves and Surfaces", Prentice-Hall, 1976
- Noter

Forudsætninger:

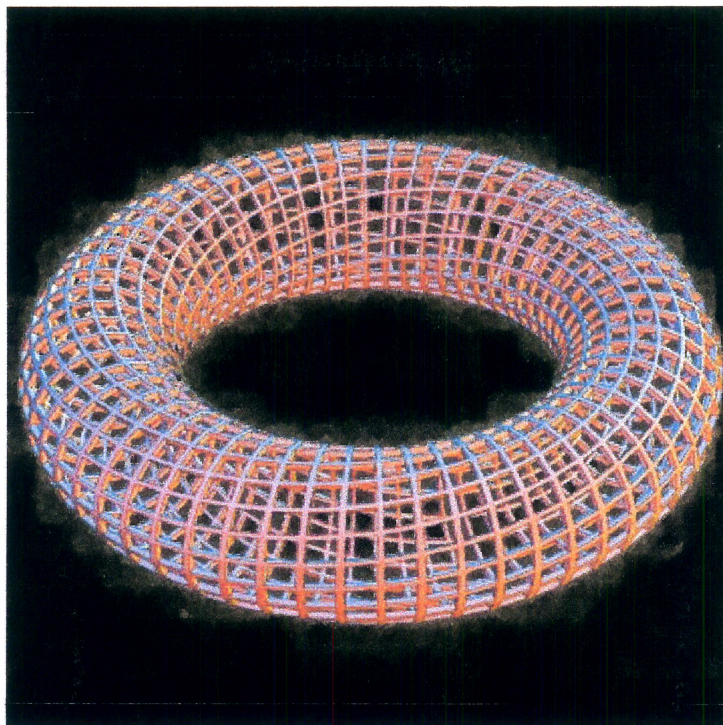
Mat 10 og Mat 11 eller tilsvarende.

Evaluerings:

En mundtlig prøve med forberedelse. Bedømmelse efter 13-skalaen.

Obligatoriske opgaver:

Der stilles i løbet af semesteret 12 afleveringsopgaver. For at kunne indstille sig til eksamen er det en forudsætning, at 8 af opgaverne er afleveret og godkendt.

**Forelæser:**

[Jørgen Ellegaard Andersen](#), A3.19, andersen@mi.aau.dk

Instruktorer:

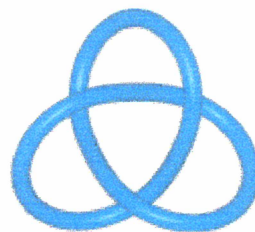
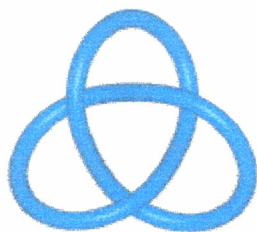
- [Jakob Grove](#), A3.16, grove@mi.aau.dk
- Søren Kold Hansen, A3.16, kold@mi.aau.dk
- [Flemming Lindblad Johansen](#), A4.29, lindblad@mi.aau.dk
- [Andrew du Plessis](#), A3.22, matadp@mi.aau.dk

Forelæsninger:

- Torsdag 14-16, Aud. F
- Fredag 11-13, Aud. D1

Instruktion:

	Type	Tid	Sted	Instruktor
Hold 1	MD	Mandag 10-13	H3.24	Andrew du Plessis
Hold 2	MD	Fredag 8-11	H3.22	Søren Kold Hansen
Hold 3	Blandet	Fredag 8-11	H3.24	Jakob Grove
Hold 4	MK, MØ	Tirsdag 8-11	520-737	Flemming Lindblad Johansen
Hold 5	MF	Torsdag 11-14	G32	Andrew du Plessis
Hold 6	Blandet	Fredag 8-11	H2.28	Flemming Lindblad Johansen



Ugesedler:

- [Ugeseddel 1](#)
- [Ugeseddel 2](#)
- [Ugeseddel 3](#)
- [Ugeseddel 4](#)
- [Ugeseddel 5](#)
- Ugeseddel 6
- Ugeseddel 7
- Ugeseddel 8
- Ugeseddel 9
- Ugeseddel 10
- Ugeseddel 11
- Ugeseddel 12
- Ugeseddel 13
- Ugeseddel 14
- Ugeseddel 15

Noter:

- [Whitney's sætning for plane kurver. N1.](#)
- [Supplerende Noter om differentiable flader. N2.](#)

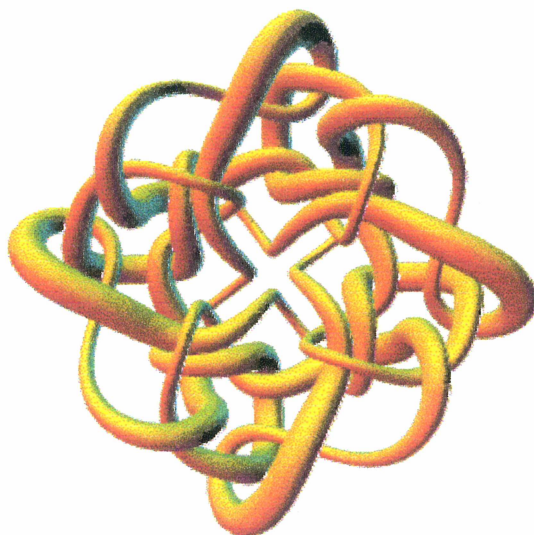
Ikke obligatorisk supplerende litteratur:

- Birger Iversen: "Geometry of Surfaces", Lecture Notes Series 1994. No. 63
- Johan L. Dupont: "Topologi", Matematisk Instituts Forelæsnings Noter. Revideret udgave, november 1989.

Ikke obligatorisk videregående litteratur:

- Johan L. Dupont, "Differential Geometry", Matematisk Instituts Forelæsnings Noter. 1993 No. 62.
- Peter Petersen, "Riemannian geometry", Berlin, Springer, 1998. (Graduate texts in mathematics, 171)
- Ib Madsen og Jørgen Tornehave, "Introduktion til Algebraisk Topologi, Differentialformer og karakteristiske klasser, 1. del.", Matematisk Instituts Forelæsnings Noter. 1993 No. 61.
- James R. Munkres, "Topology, a first course", Prentice Hall, Englewood Cliffs, New Jersey 07632.

- Edwin H. Spanier, "Algebraic Topology", Springer, New York
- Shoshichi Kobayashi and Katsumi Nomizu, "Foundations of differential geometry", John Wiley and Sons, Inc. New York.



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