## TFY 4195: Optics – Assignment 1 (Hand-in not later than Sept 10<sup>th</sup>.)

## A1.1:

Solve problem 2-23B in Pedrotti. Make a proper ray-tracing based on the solution, showing the essential rays from object to final image.

## A1.2:

Solve problem 2-2 in PP.

In addition, make a plot of the Cartesian oval together with a half sphere centred at the same image point to see how the shapes differ. Use your favourite software/computer to solve the equation and make the plot.

Solutions are handed in as pdf on BB.