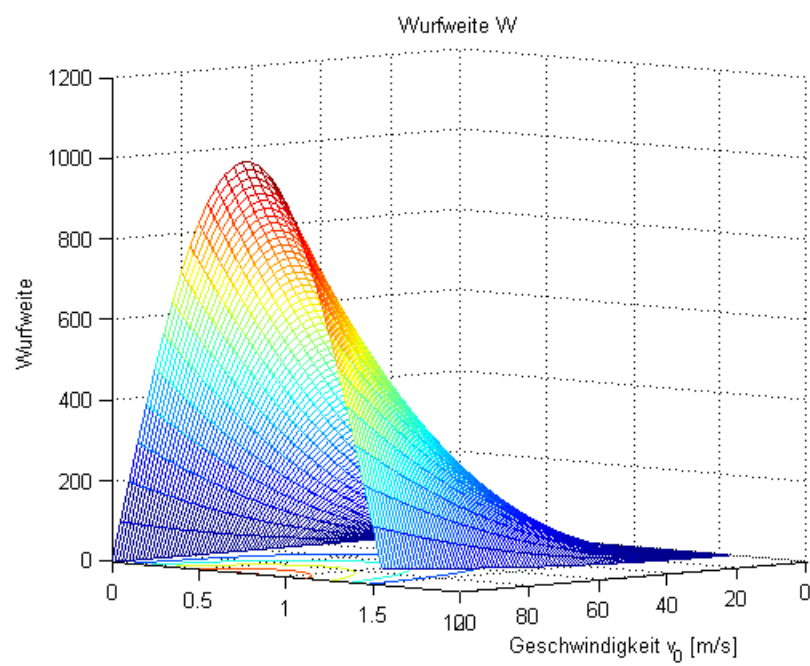
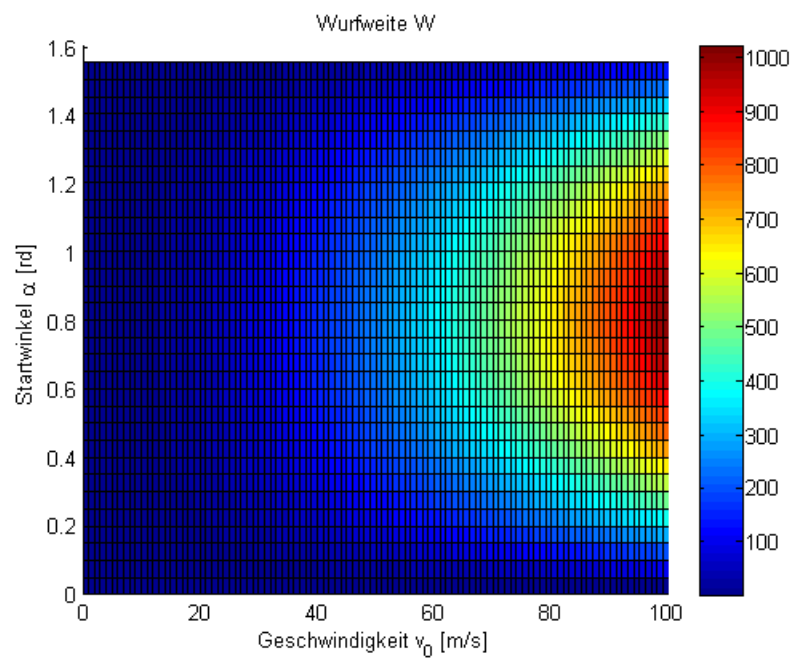
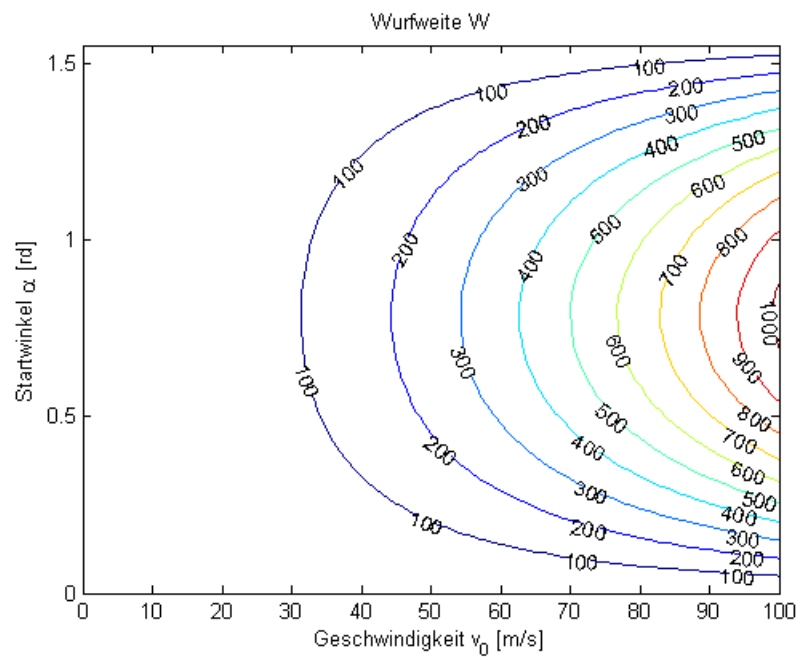


Übungsserie 11 Resultate

Aufgabe 1

a)





Maximales W für Startwinkel:

$$\alpha = \frac{\pi}{4} = 45^\circ$$

Aufgabe 2

a)

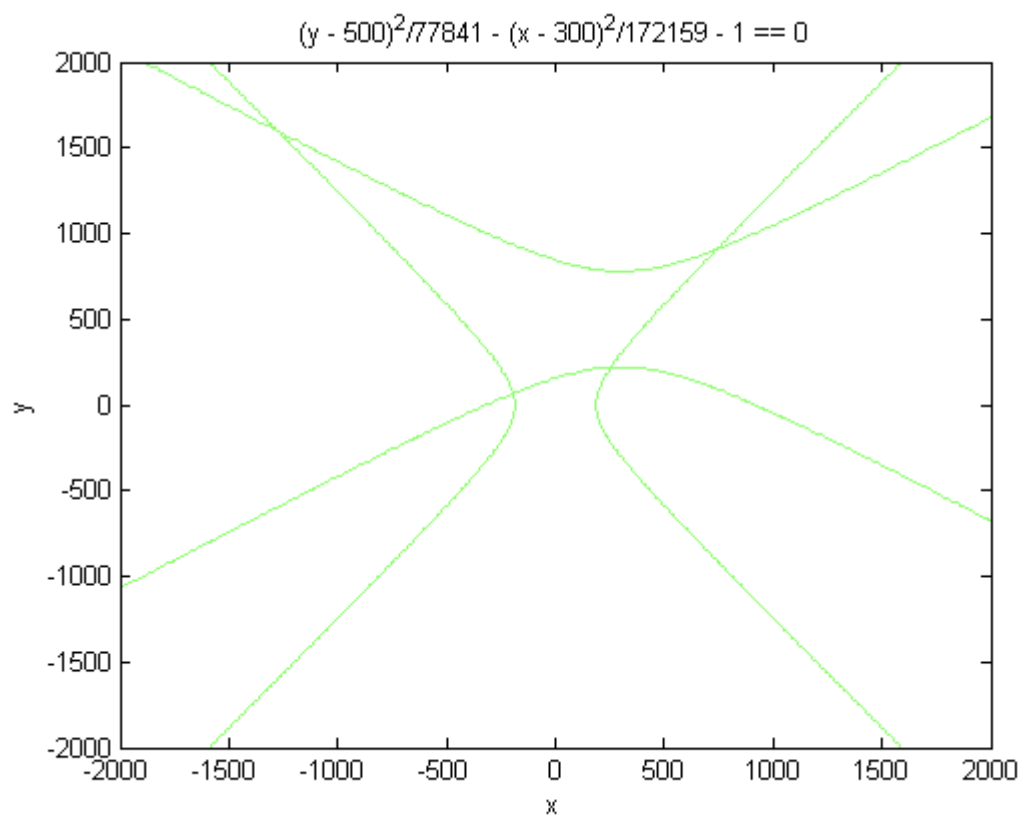
$$Df(1, 2) = \begin{pmatrix} 10 & 5 \\ 9 & 6 \end{pmatrix}$$

b)

$$Df(1, 2, 3) = \begin{pmatrix} \frac{2}{5} & \frac{4}{5} & 6 \\ 2 & 4e^{13} & 6e^{13} \\ \frac{-2}{100} & 4 & \frac{-6}{100} \end{pmatrix}$$

Aufgabe 3

a)



b) Die vier Nullstellen sind:

$$\begin{pmatrix} -1273.3 \\ 1594.1 \end{pmatrix}, \begin{pmatrix} -193.2946 \\ 66.5649 \end{pmatrix}, \begin{pmatrix} 254.2211 \\ 219.3070 \end{pmatrix}, \begin{pmatrix} 740.3289 \\ 906.8260 \end{pmatrix}$$