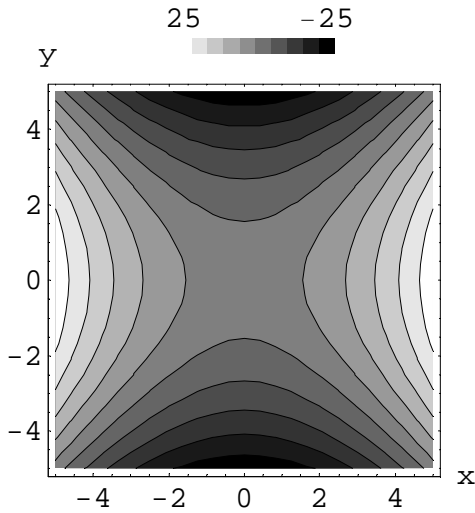


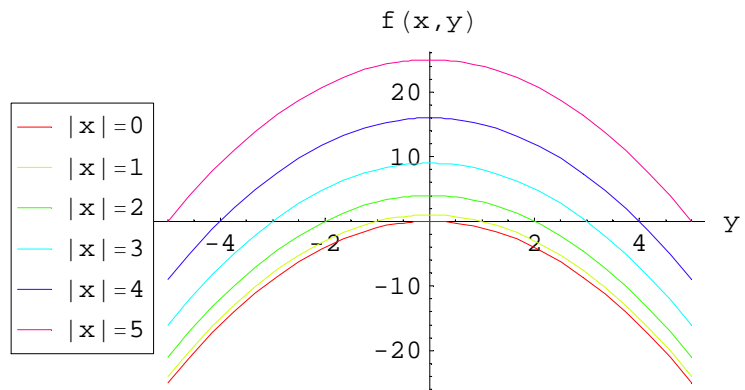
Darstellungsweisen mehrdimensionaler Funktionen

$$f(x, y) = x^2 - y^2$$

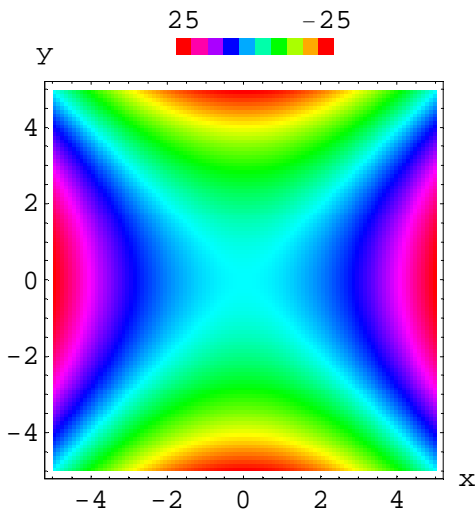
ContourPlot=Höhenliniendiagramm



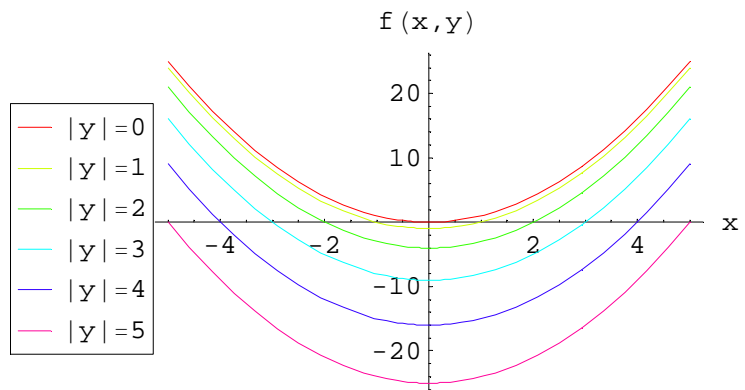
Schnittlinien parallel zur x-Ebene



Falschfarbendarstellung

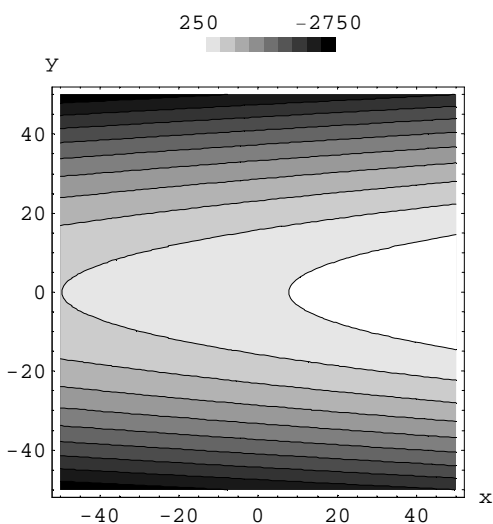


Schnittlinien parallel zur y-Ebene

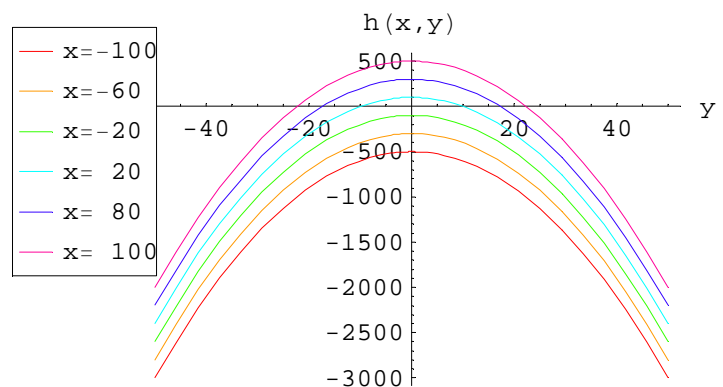


$$h(x, y) = 5x - y^2 + 1$$

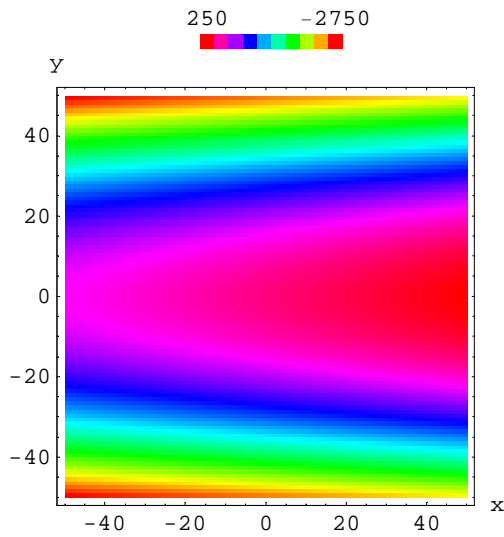
ContourPlot=Höhenliniendiagramm



Schnittlinien parallel zur x-Ebene

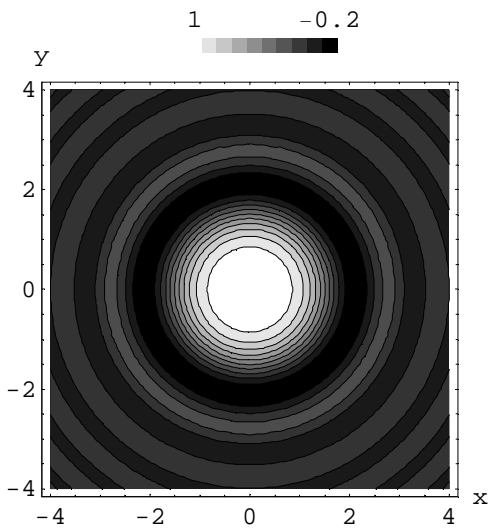


Falschfarbendarstellung

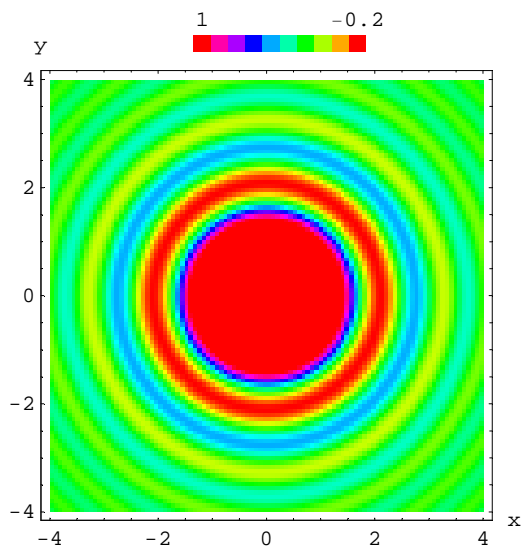


$$g(x, y) = \frac{\sin(x^2 + y^2)}{x^2 + y^2}$$

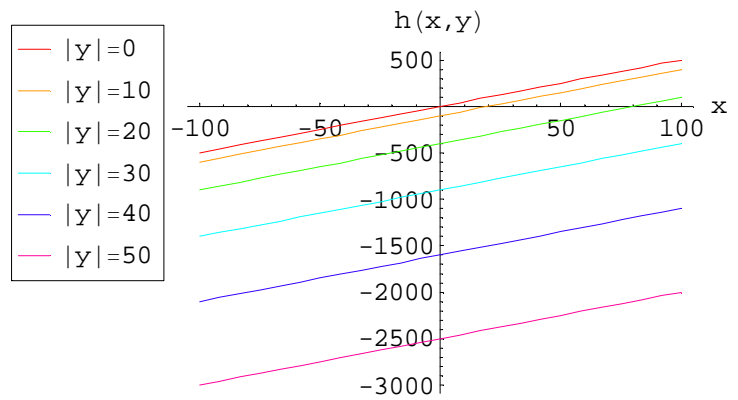
ContourPlot=Höhenliniendiagramm



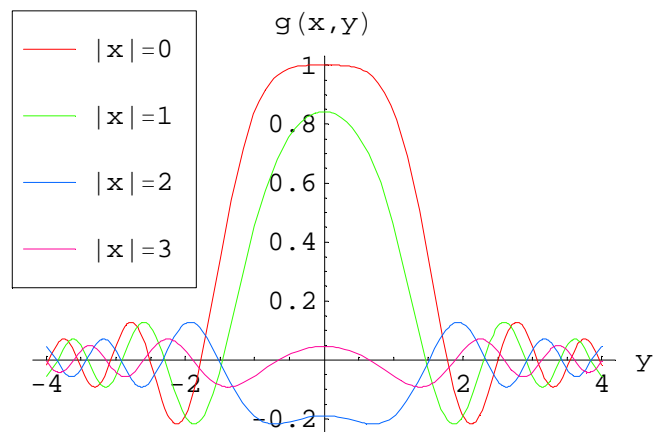
Falschfarbendarstellung



Schnittlinien parallel zur y-Ebene



Schnittlinien parallel zur x-Ebene



Zum Selber Ausprobieren

- Höhenlinienplot:
ContourPlot[x^2-y^2,{x,-5,5},{y,-5,5}]
- Schnittlinienplot:
Plot[{x^2,-1+x^2,-4+x^2,-9+x^2,-16+x^2,-25+x^2},{x,-5,5}]
- Falschfarbenplot:
DensityPlot[x^2-y^2, {x,-5,5},{y,-5,5},
Mesh->False, PlotPoints->200,
ColorFunction->Hue]
- Oberflächenplot:
Plot3D[x^2-y^2,{x,-5,5},{y,-5,5}]