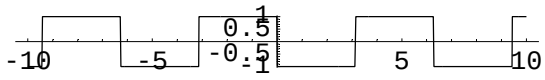
Interessante Plots 2D und 3D

2D

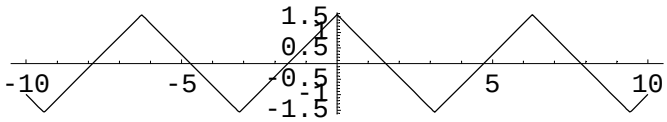
```
D[ArcSin[Cos[x]], x]
```

$$-\frac{\text{Sin}[x]}{\sqrt{1-\text{Cos}[x]^2}}$$

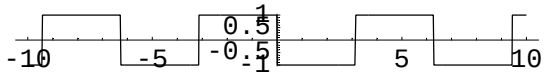
```
Plot[-Sin[x]/Sqrt[1-Cos[x]^2],{x,-10,10},AspectRatio→Automatic];
```



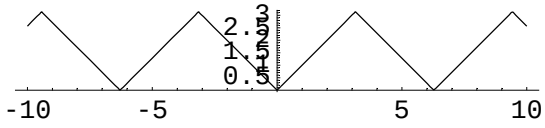

```
Plot[ArcSin[Cos[x]], {x, -10, 10}, AspectRatio → Automatic];
```



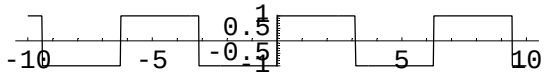

```
Plot[Evaluate[D[ArcSin[Cos[x]], x]], {x, -10, 10},
  AspectRatio → Automatic];
```



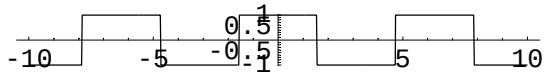

```
Plot[ArcCos[Cos[x]], {x, -10, 10}, AspectRatio → Automatic];
```



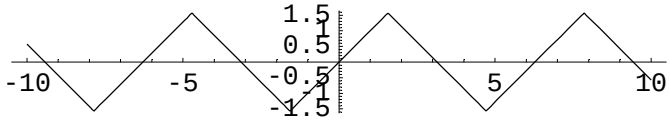

```
Plot[Evaluate[D[ArcCos[Cos[x]], x]], {x, -10, 10},
  AspectRatio → Automatic];
```



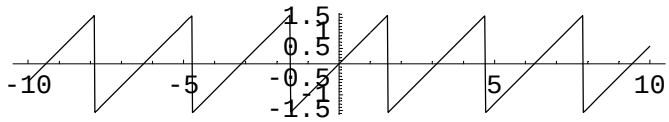
```
Plot[Evaluate[D[ArcSin[Sin[x]], x]], {x, -10, 10},
  AspectRatio → Automatic];
```



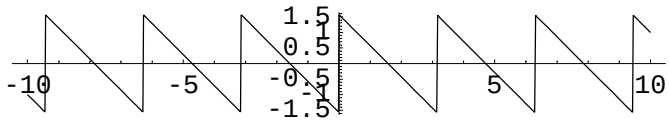

```
Plot[ ArcSin[Sin[x]], {x, -10, 10}, AspectRatio → Automatic];
```



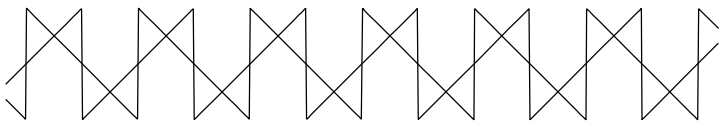

```
Plot[ ArcTan[Tan[x]], {x, -10, 10}, AspectRatio → Automatic];
```



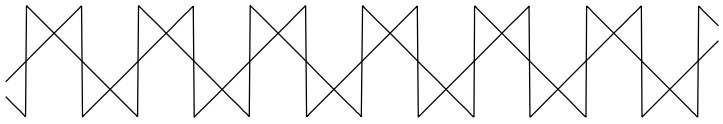

```
Plot[ ArcTan[Cot[x]], {x, -10, 10}, AspectRatio → Automatic];
```



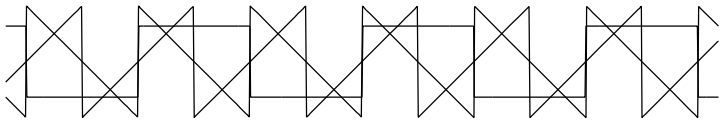

```
Plot[{ ArcTan[Cot[x]]  ArcTan[Tan[x]] }, {x, -10, 10},
 AspectRatio → Automatic, Axes → False];
```



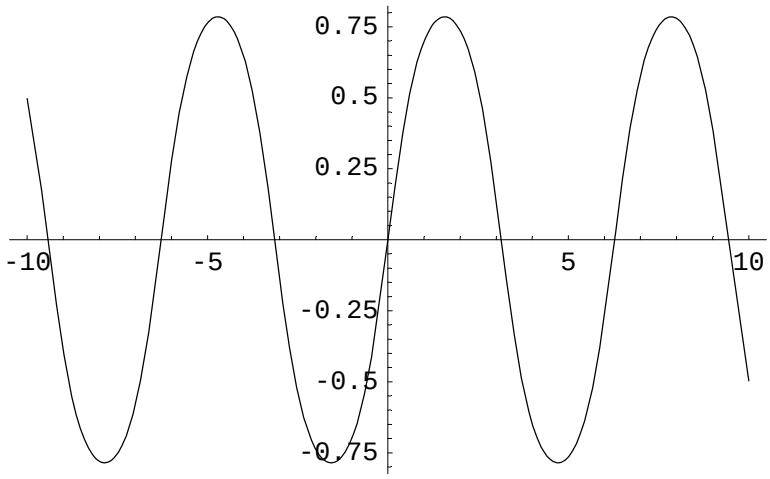
```
Plot[{ArcTan[Cot[x]], ArcTan[Tan[x]]}, {x, -10, 10},
  AspectRatio → Automatic, Axes → False];
```



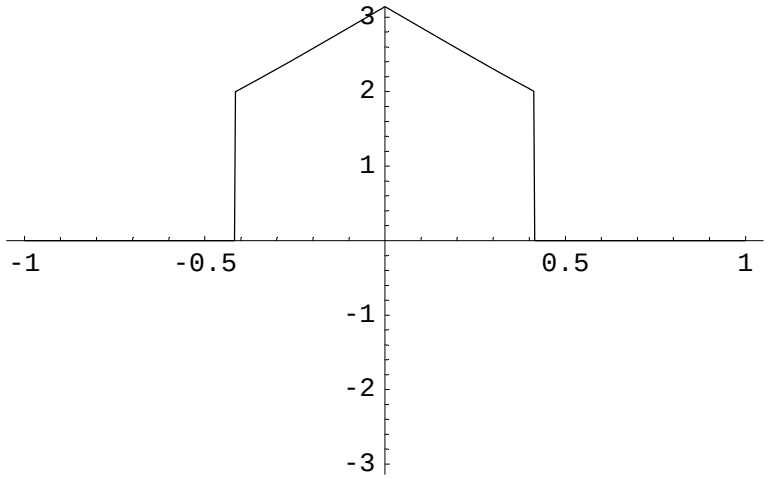
```
Plot[{ArcTan[Cot[x]], ArcTan[Tan[x]], Sin[x] / Sqrt[1 - Cos[x]^2]},
  {x, -10, 10}, AspectRatio → Automatic, Axes → False];
```



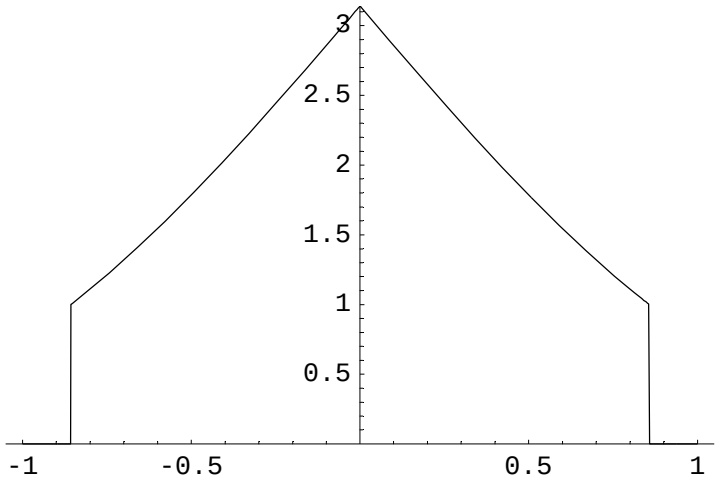
```
Plot[ArcTan[Sin[x]], {x, -10, 10}];
```



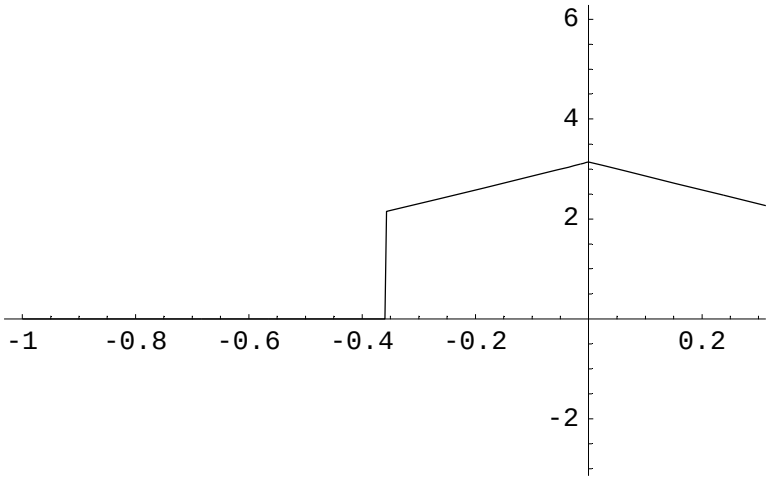

```
Plot[2 ArcSin[E^(-x^2)] * Sign[Floor[ ArcSin[E^(-x^2)] ]],
  {x, -1, 1}, PlotRange → {-Pi, Pi}];
```



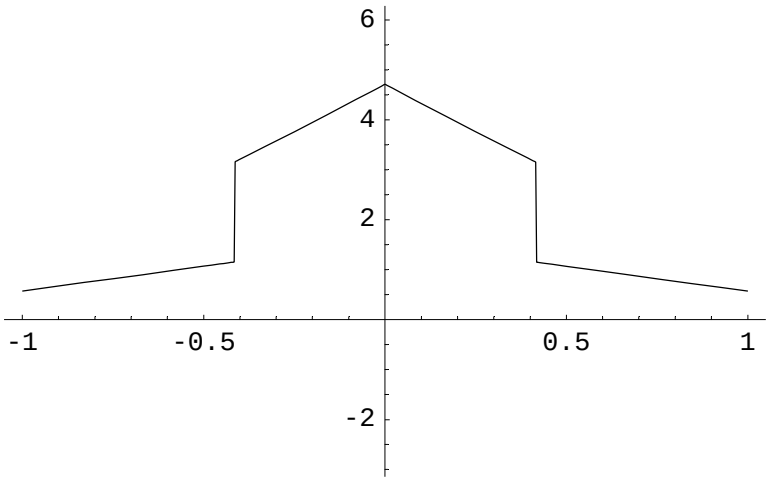

```
Plot[2 ArcSin[E^(-x^2)] * Sign[Floor[ 2 ArcSin[E^(-x^2)] ]],
  {x, -1, 1}, PlotRange → {0, Pi}];
```



```
Plot[2 ArcSin[E^(-x^2)] * Sign[Floor[ 2 ArcSin[E^(-(x - 0.5)^2)] ]],
  {x, -1, 1}, PlotRange → {-Pi, 2 Pi}];
```

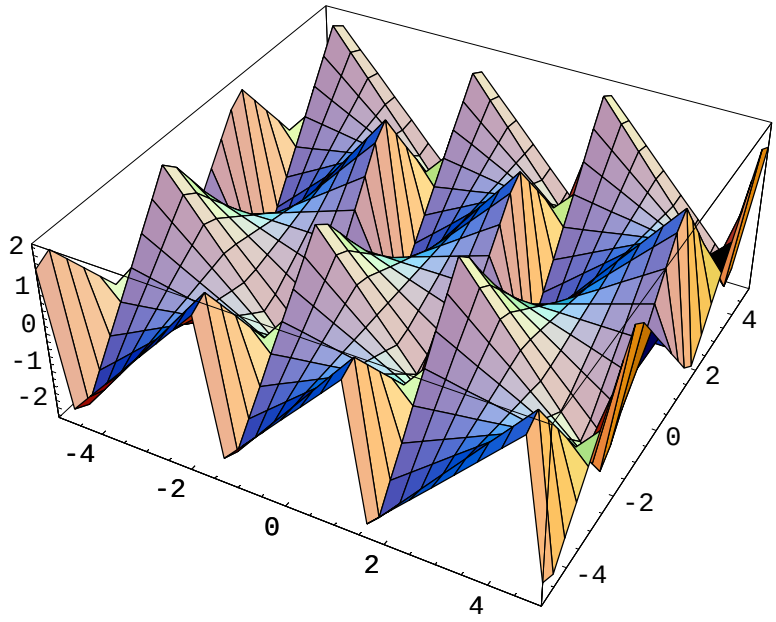



```
Plot[2 ArcSin[E^(-x^2)] * Sign[Floor[ ArcSin[E^(-x^2)] ]] +
   ArcSin[Cos[x]], {x, -1, 1}, PlotRange → {-Pi, 2 Pi}];
```

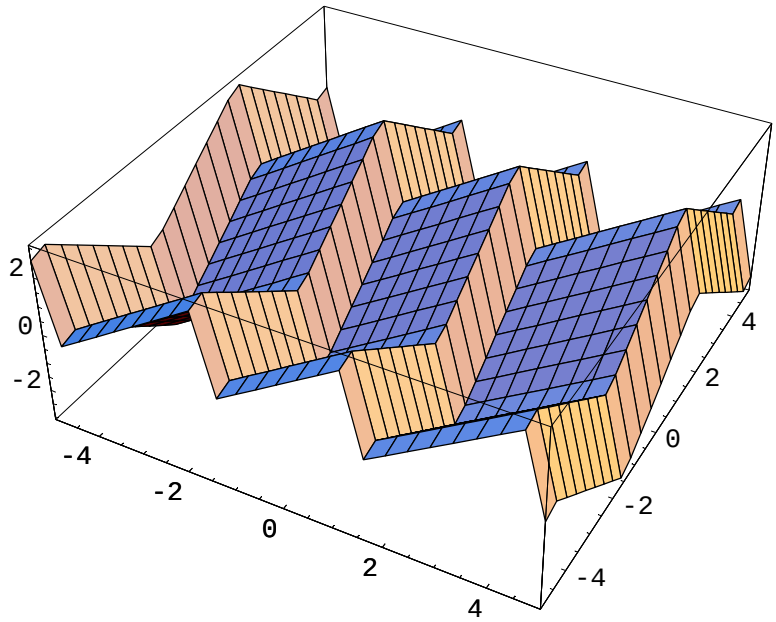


3D

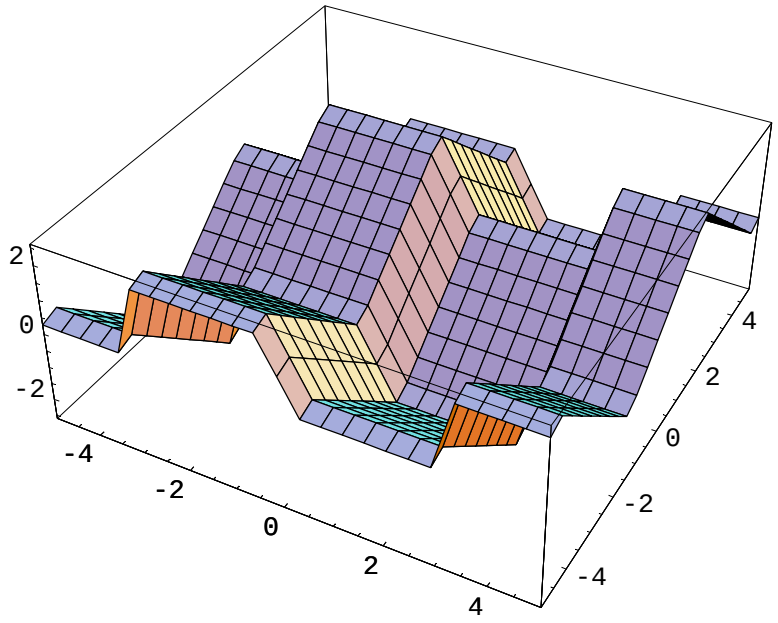
```
p0=Plot3D[ ArcTan[Tan[x]] ArcSin[Sin[y]],{x,-5,5},{y,-5,5}];
```



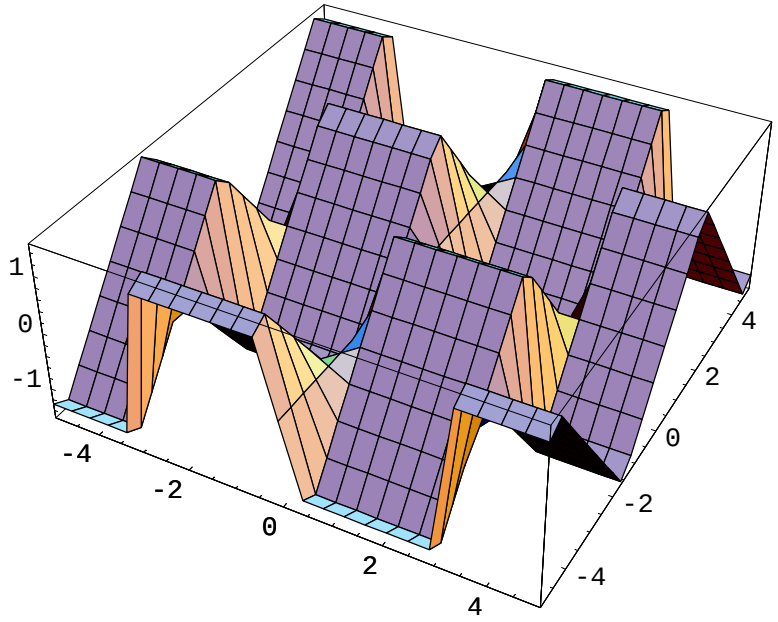

```
p0=Plot3D[ ArcTan[Tan[x]]+ArcSin[Sin[y]],{x,-5,5},{y,-5,5}];
```



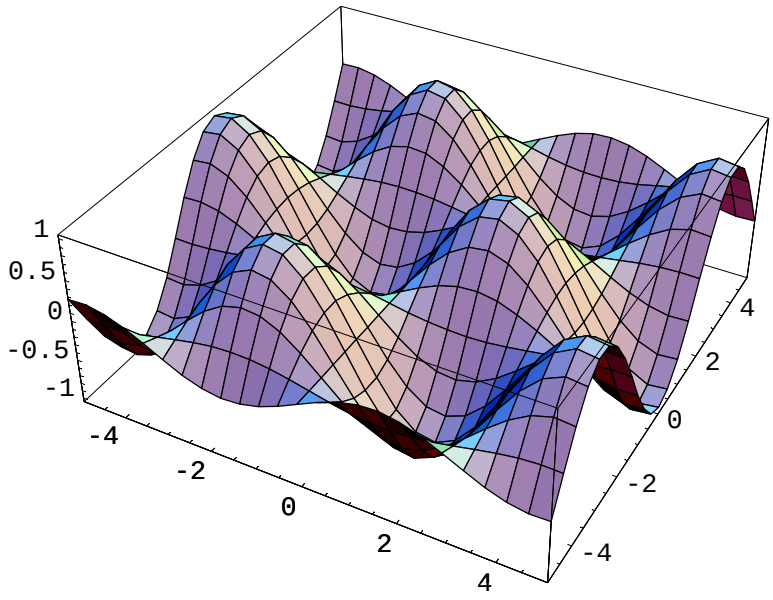
```
p0=Plot3D[-Sin[x]/Sqrt[1.0001-Cos[x]^2]+ArcSin[Sin[y]],{x,-5,5},{y,-5,
5}];
```



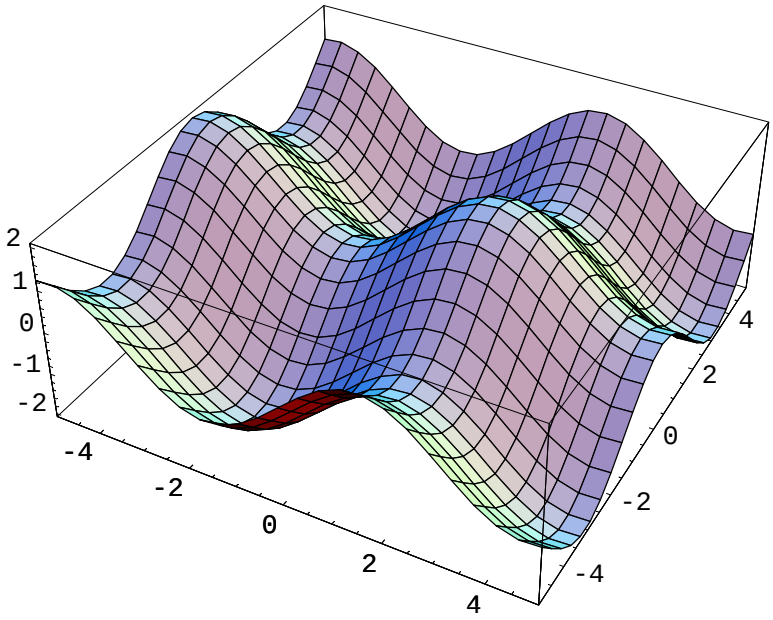

```
p0=Plot3D[-Sin[x]/Sqrt[1.0001-Cos[x]^2]
ArcSin[Sin[y]],{x,-5,5},{y,-5,5}];
```



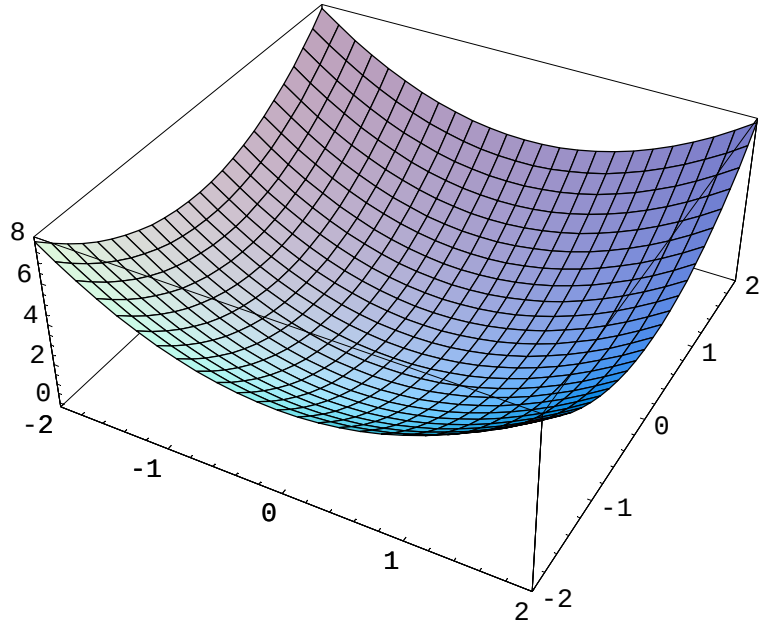
```
p0=Plot3D[ Sin[x] Cos[y],{x,-5,5},{y,-5,5}];
```



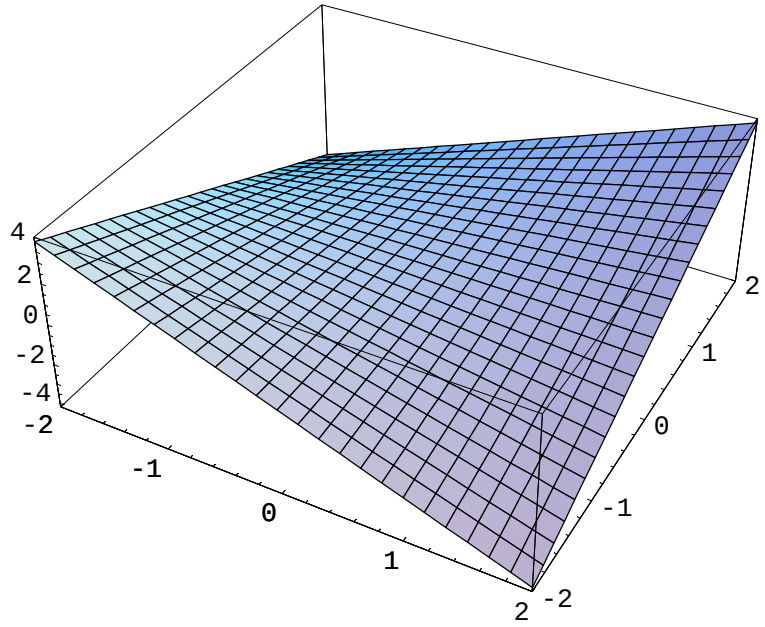

```
p0=Plot3D[ Sin[x]+Cos[y],{x,-5,5},{y,-5,5}];
```



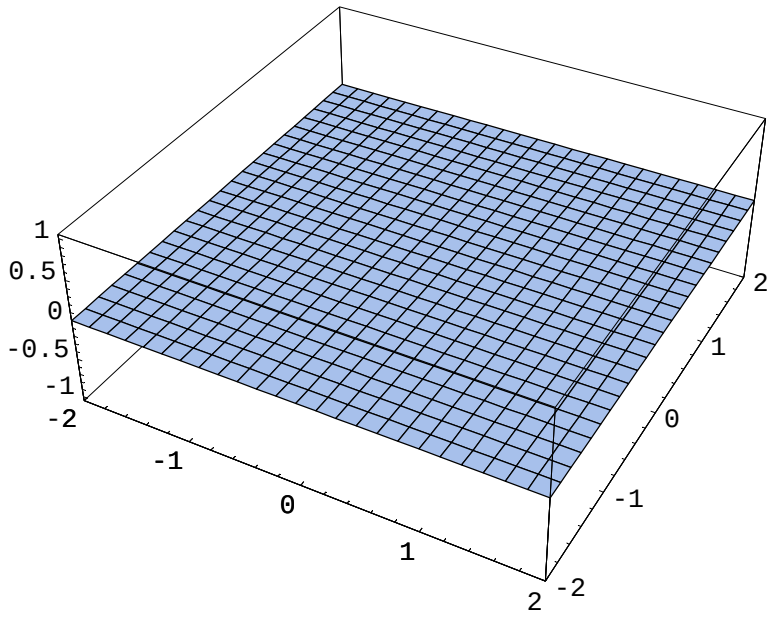
```
p1 = Plot3D[x^2 + y^2, {x, -2, 2}, {y, -2, 2}];
```



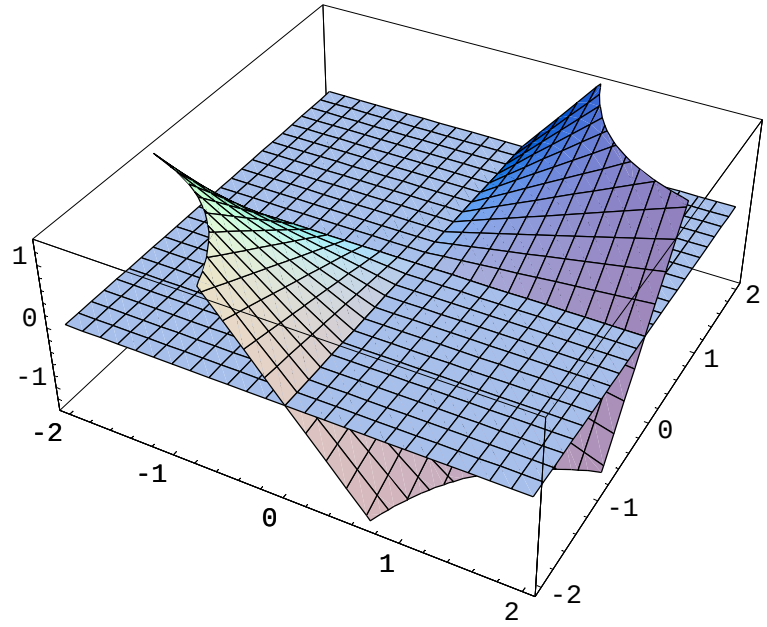

```
p2 = Plot3D[x y, {x, -2, 2}, {y, -2, 2}];
```



```
p3 = Plot3D[0, {x, -2, 2}, {y, -2, 2}];
```



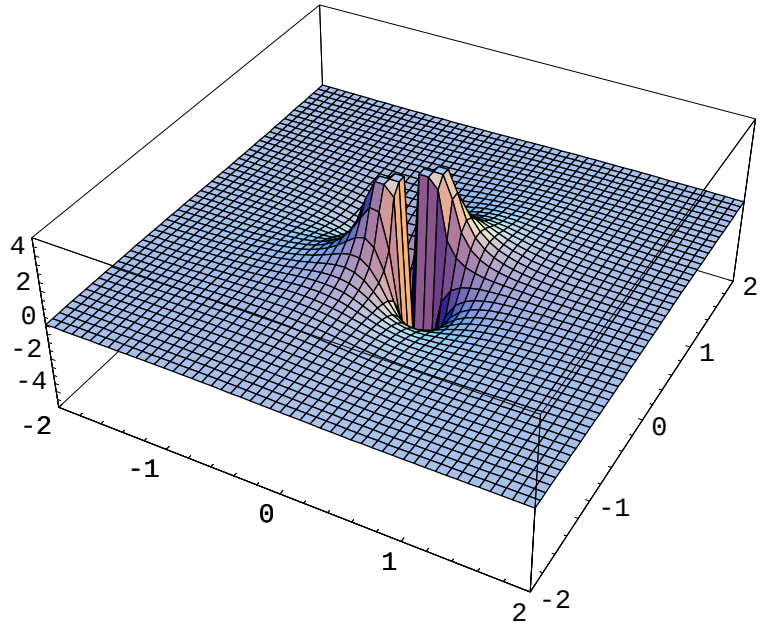

```
Show[p2, p3];
```



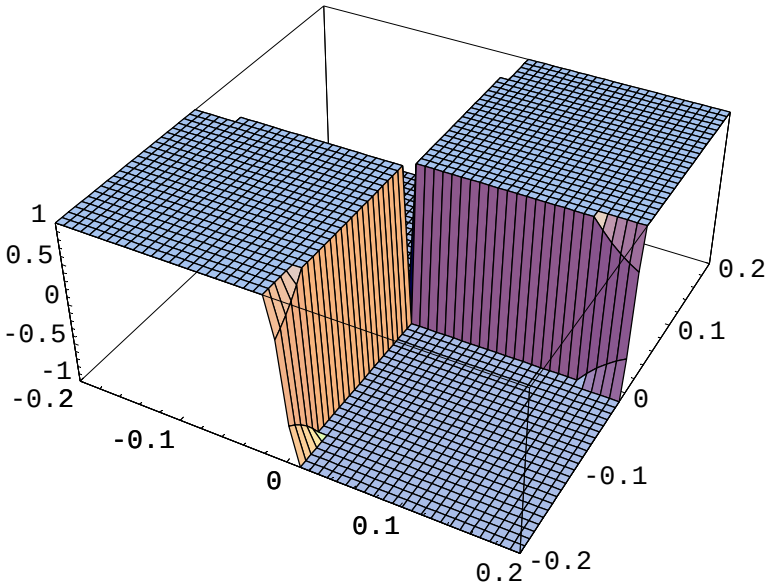

```
?PlotPoints
```

PlotPoints is an option for plotting functions that
specifies how many initial sample points to use. Mehr…

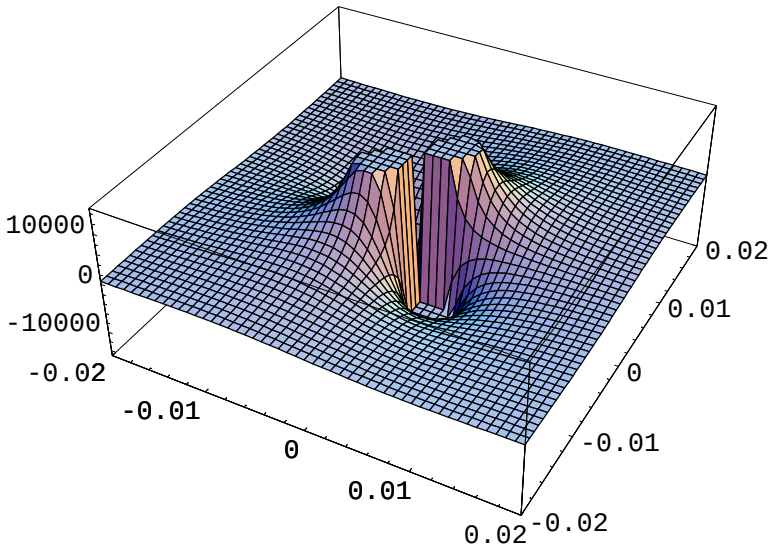
```
p4 = Plot3D[x y / (x^2 + y^2)^2, {x, -2, 2}, {y, -2, 2},
   PlotRange → {-5, 5}, PlotPoints → 50];
```



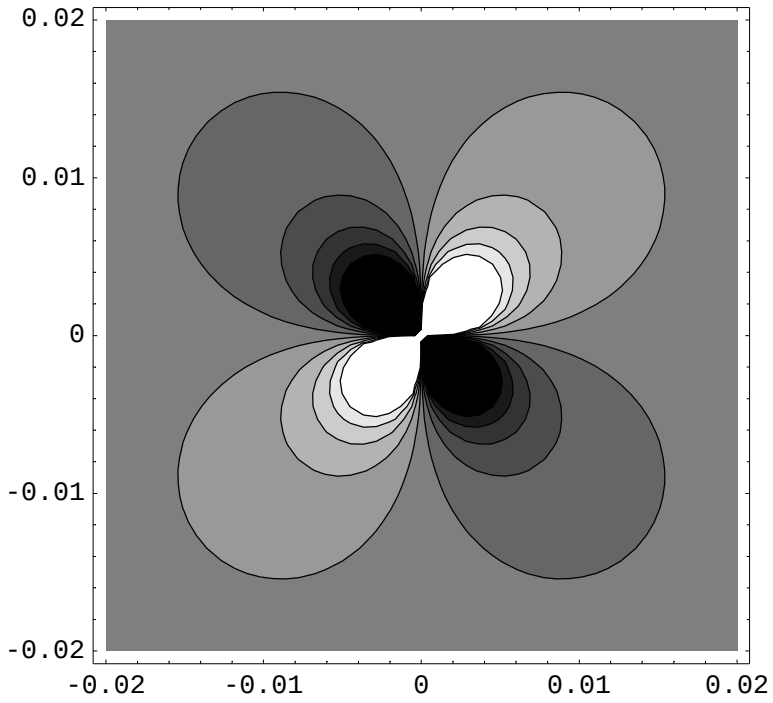

```
p4 = Plot3D[x y / (x^2 + y^2)^2, {x, -0.2, 0.2}, {y, -0.2, 0.2},
   PlotRange → {-1, 1}, PlotPoints → 50];
```



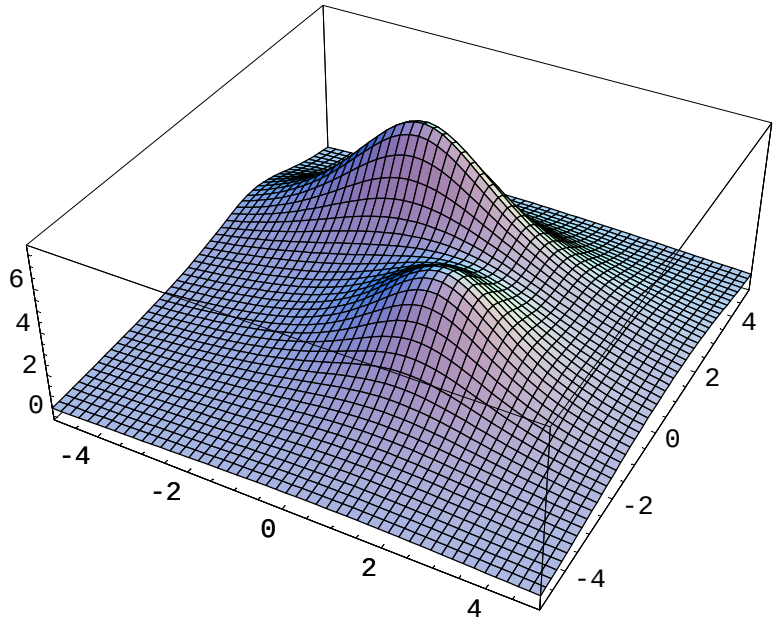
```
p4 = Plot3D[x y / (x^2 + y^2)^2, {x, -0.02, 0.02}, {y, -0.02, 0.02},
   PlotRange → {-15000, 15000}, PlotPoints → 50];
```




```
ContourPlot[x y / (x^2 + y^2)^2, {x, -0.02, 0.02}, {y, -0.02, 0.02},
  PlotRange → {-15000, 15000}, PlotPoints → 50];
```



```
p5 = Plot3D[50 / (10 + 3 (x - 1) ^2 + 5 (y + 1) ^2) +
    70 / (10 + 2 (x + 1) ^2 + 10 (y - 2) ^2), {x, -5, 5}, {y, -5, 5},
   PlotPoints → 50];
```




```
ContourPlot[50 / (10 + 3 (x - 1) ^2 + 5 (y + 1) ^2) +
   70 / (10 + 2 (x + 1) ^2 + 10 (y - 2) ^2), {x, -5, 5}, {y, -5, 5},
  PlotPoints → 50];
```