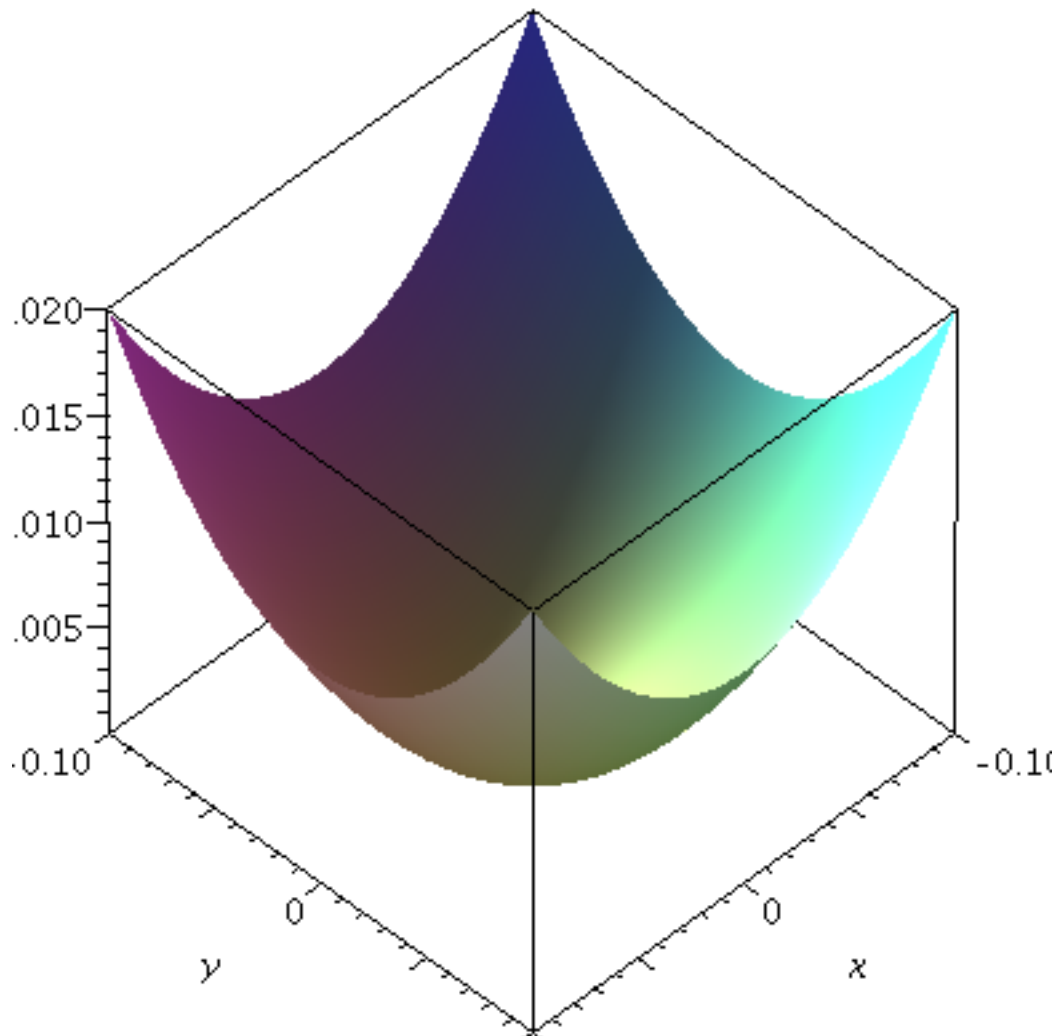


```
> with(plots) :
```

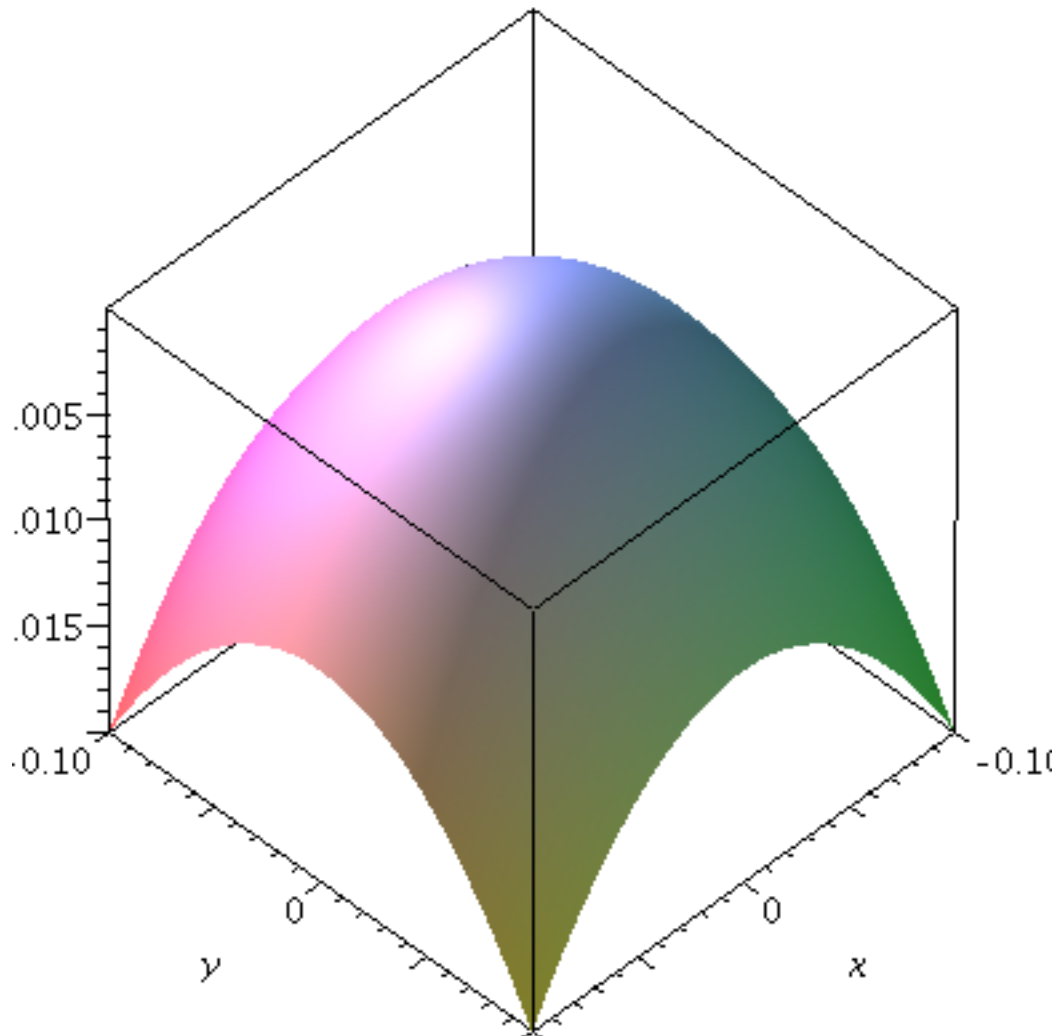
Min point

```
> plot3d( $x^2 + y^2$ , x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface,  
shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)
```



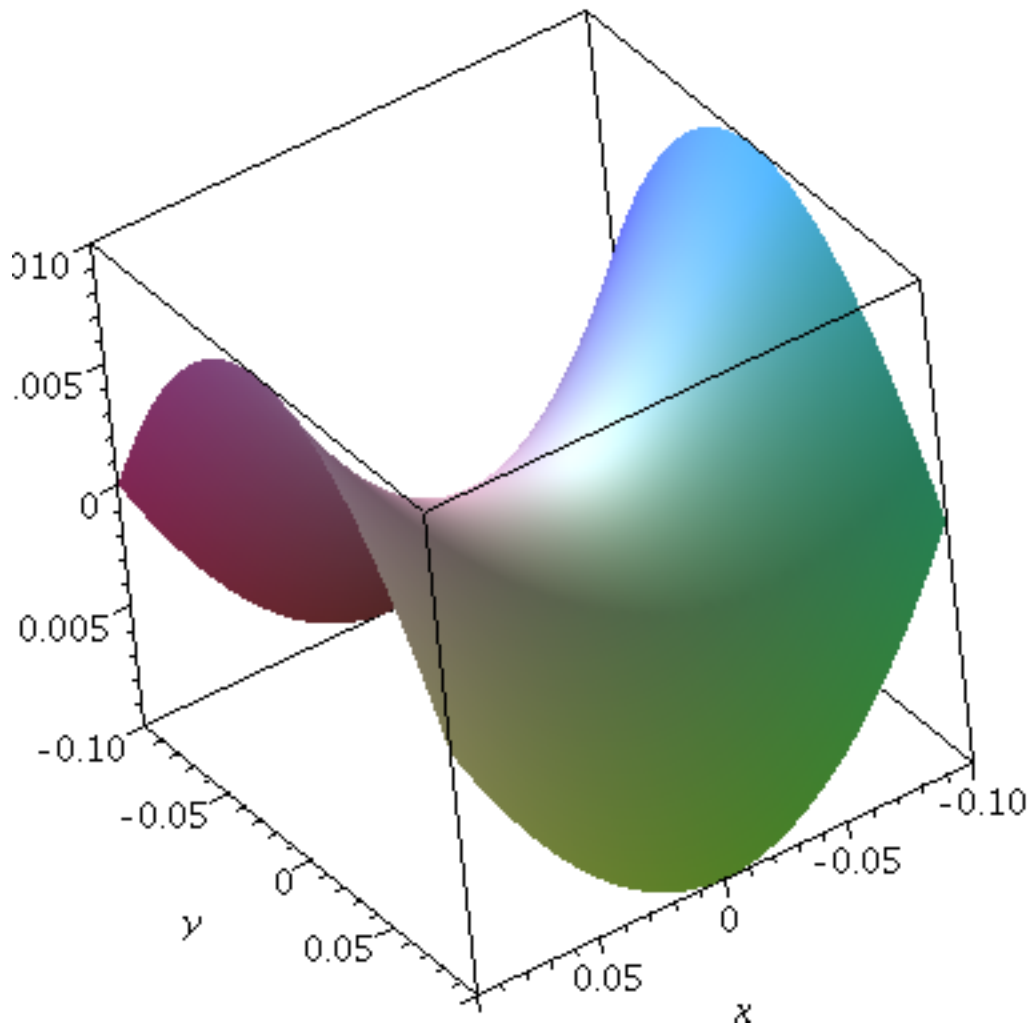
Max point

```
> plot3d( $-x^2 - y^2$ , x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface,  
shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)
```



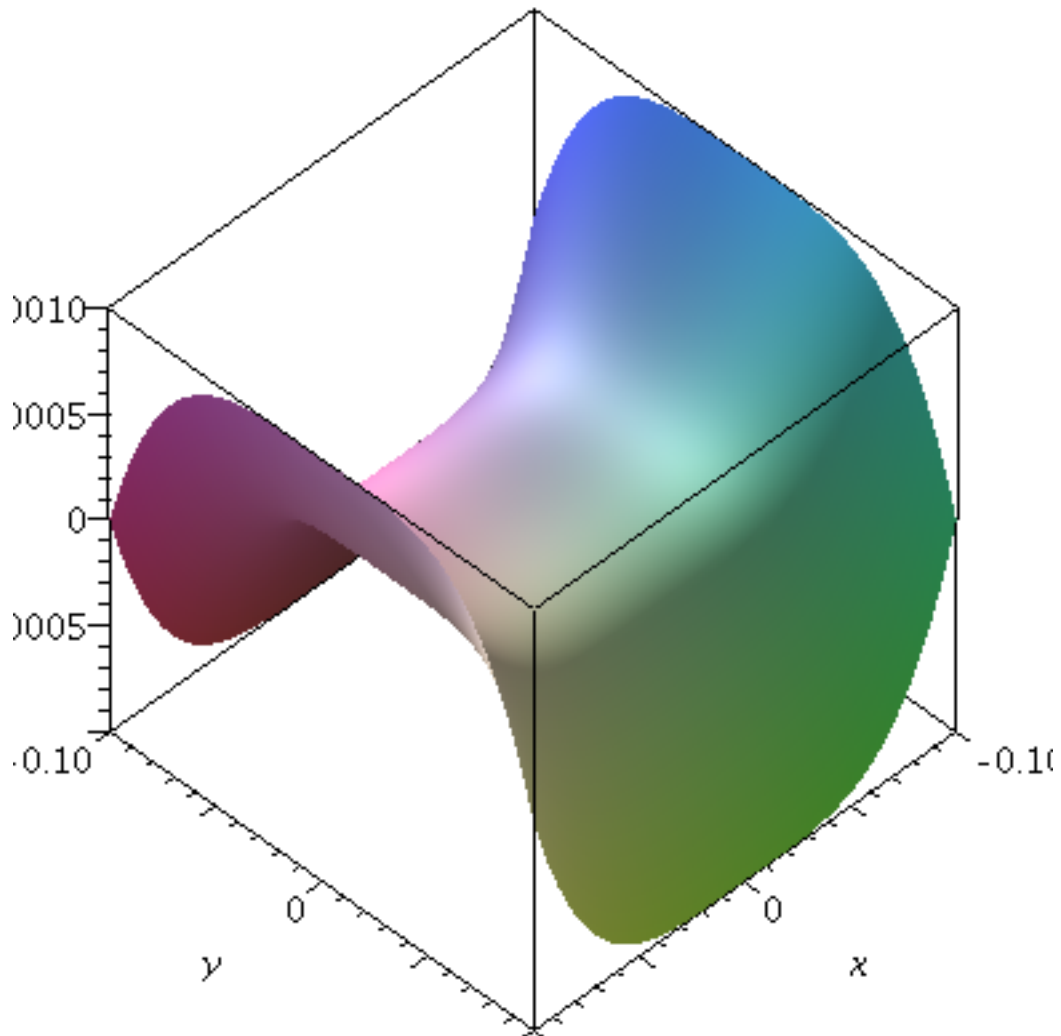
Standard saddle point

> `plot3d(x2-y2, x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)`



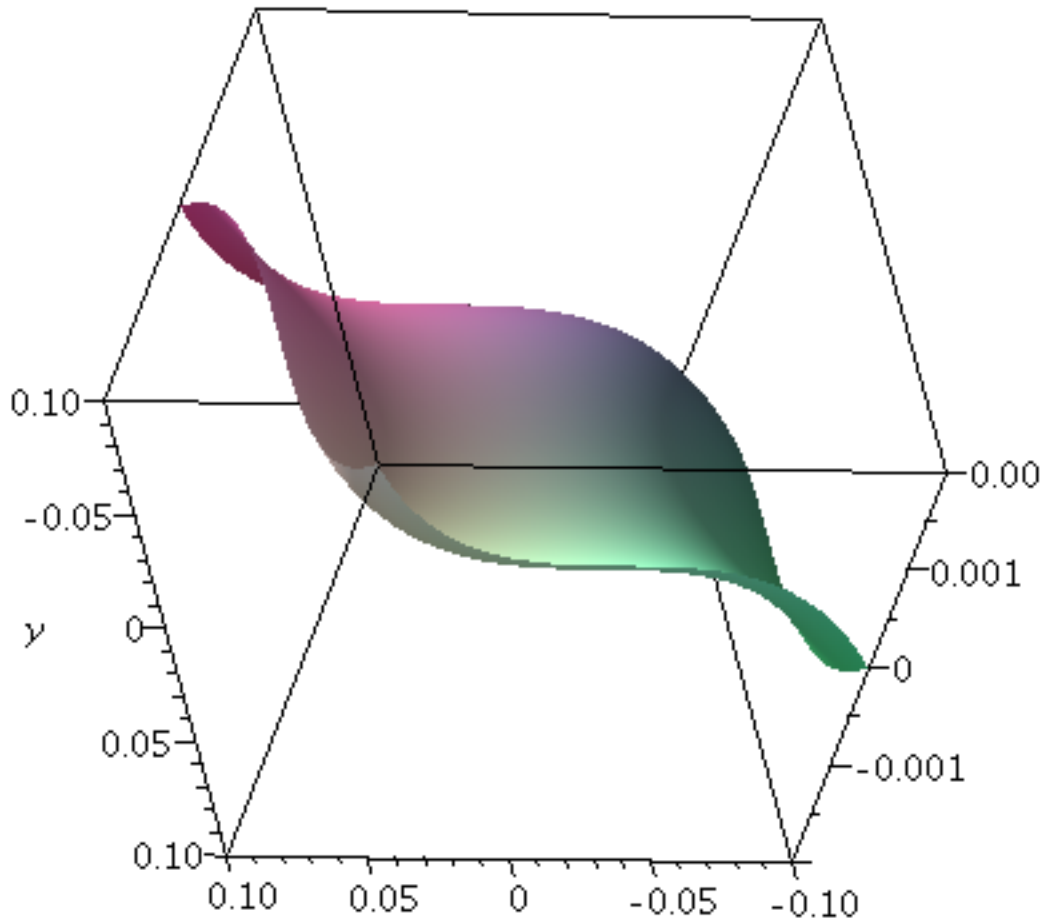
Quartic saddle point

> `plot3d(x4-y4, x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)`



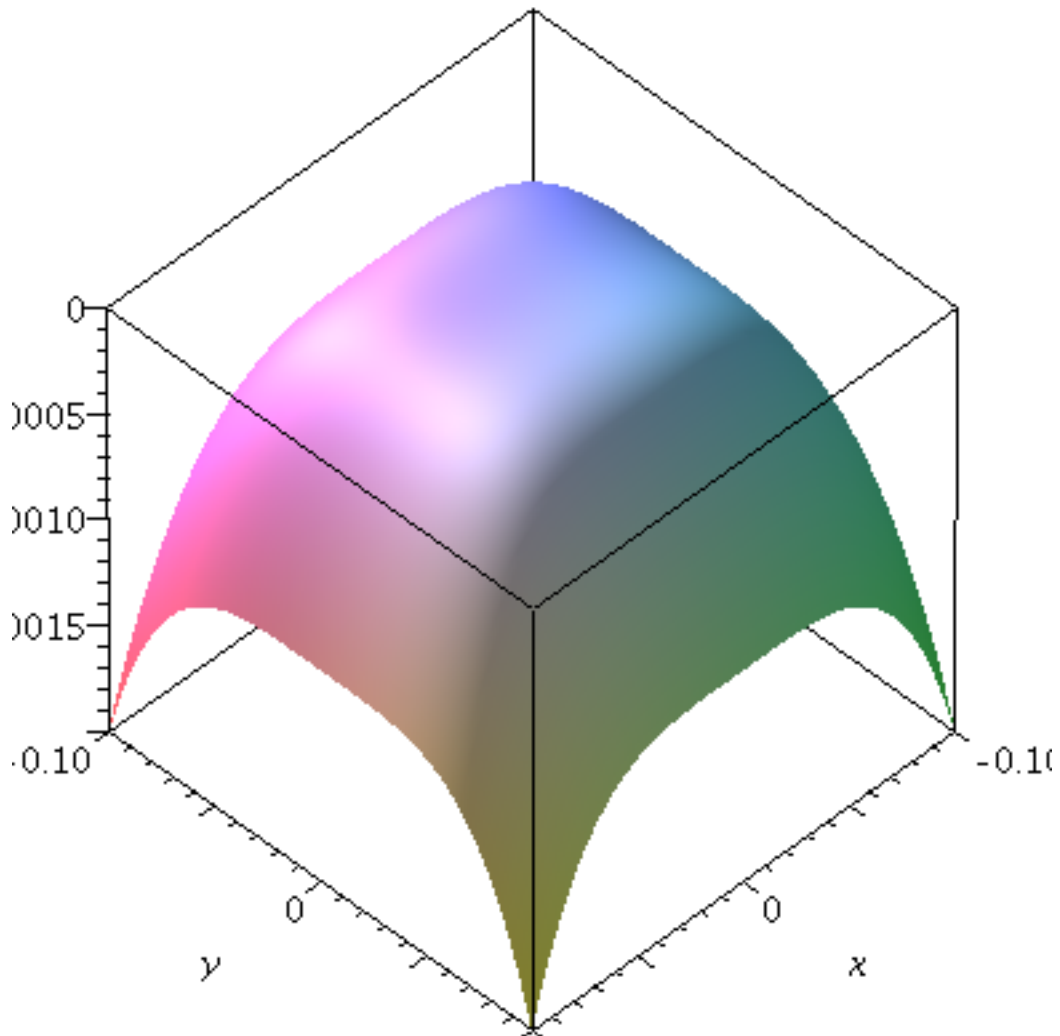
Cubic saddle

> `plot3d(x3 + y3, x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)`



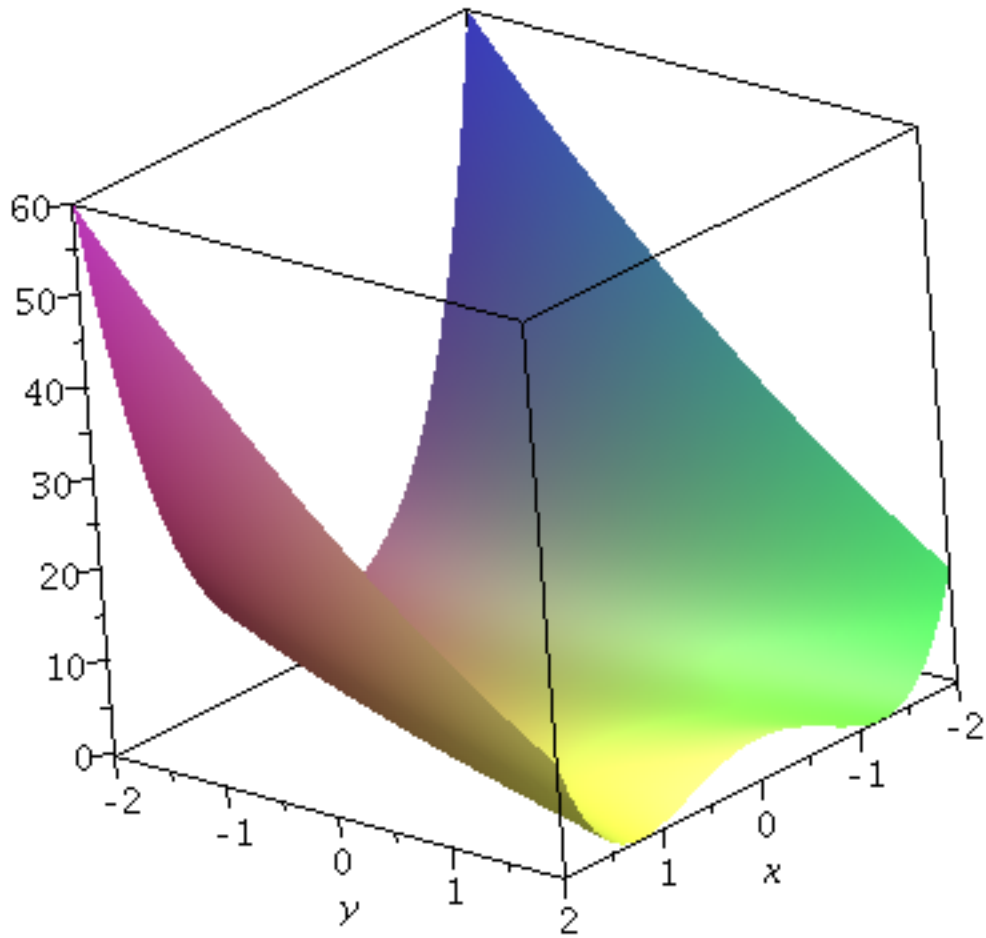
quartic max

> `plot3d(-x4-y4, x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)`



The function in problem 4.

> `plot3d((y - x2) · (y - 2 · x2), x = -2..2, y = -2..2, numpoints = 5000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5)`



The function in problem 4, narrow window.

> `plot3d((y - x^2) * (y - 2 * x^2), x = -2..2, y = -2..2, numpoints = 2000, style = surface, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5, view = -1..5, transparency = 0.25)`

