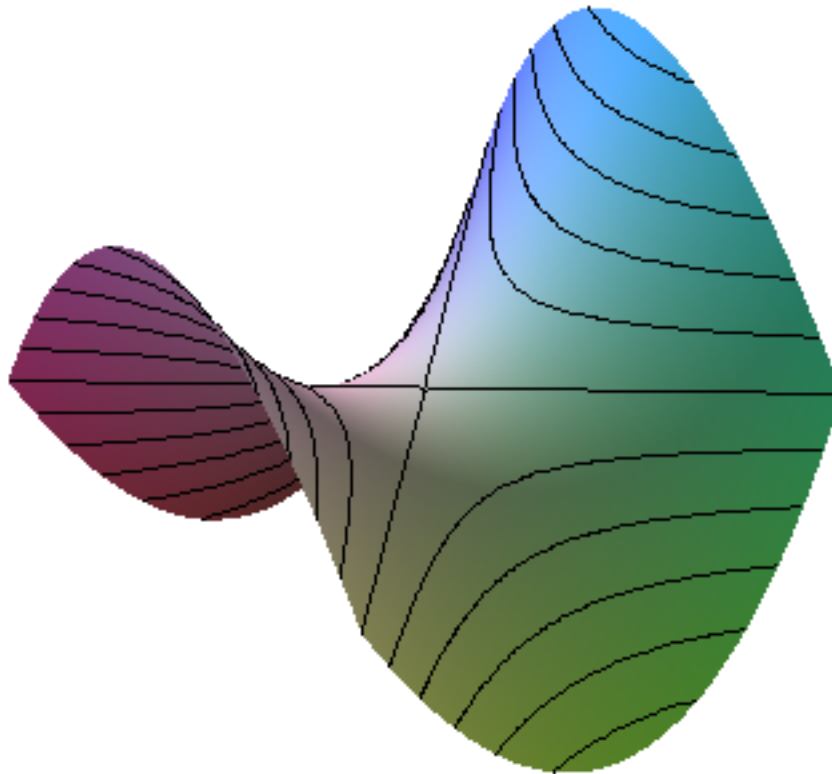


**3d plot of**

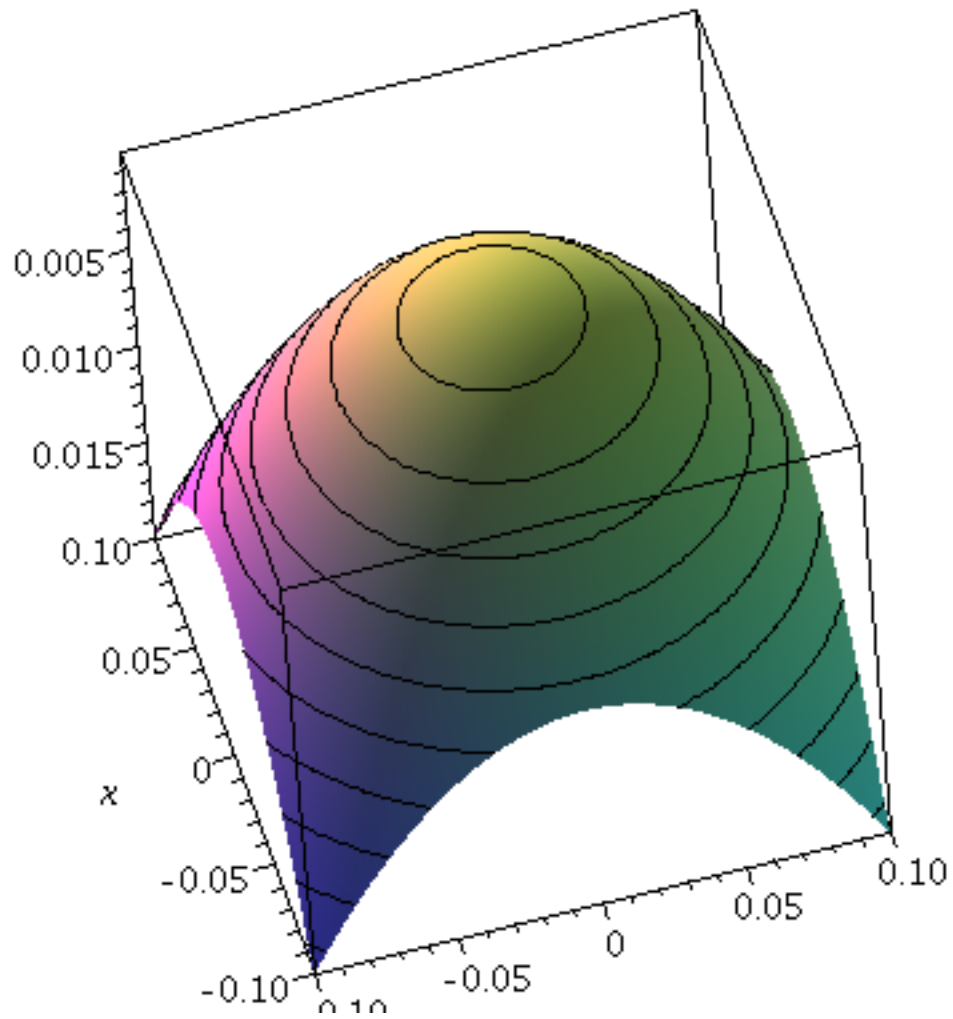
**$x^2 - y^2$  with constant level sets depicted. The level set passing through  $(0, 0)$  is not a curve.**

**>** `plot3d( $x^2 - y^2$ , x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surfacecontour, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5, contours = 11)`

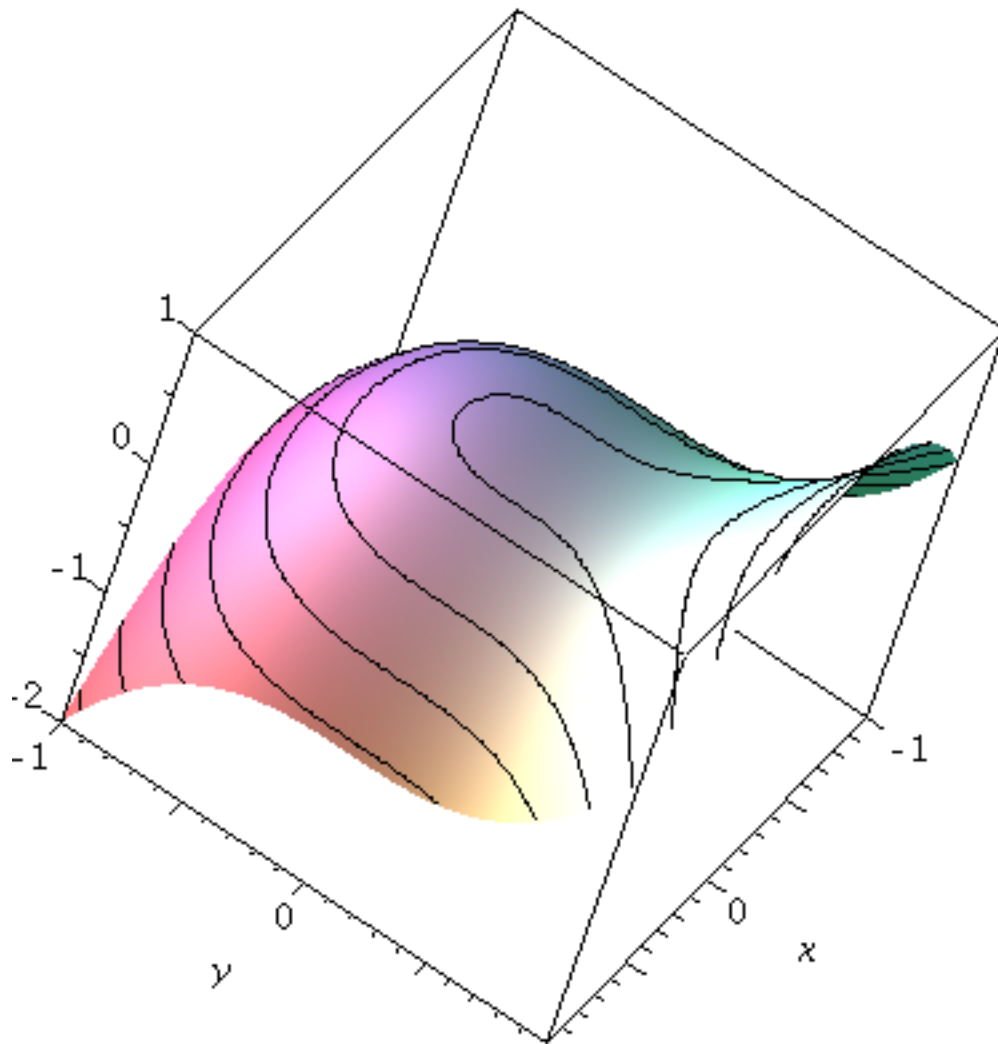


**3 d plot of  $x^2 + y^2$ . Every level set containing more than one point is a smooth curve**  
**. What is the difference between this case and the one above?**

**>** `plot3d( $x^2 + y^2$ , x=-0.1..0.1, y=-0.1..0.1, numpoints = 5000, style = surfacecontour, shading = xyz, axes = boxed, lightmodel = light3, glossiness = 0.5, contours = 10)`



> `plot3d(y3 - x2, x = -1 .. 1, y = -1 .. 1, numpoints = 5000, style = surfacecontour, shading = xyz, axes = boxed, lightmodel = light3, glossiness = .5, contours = 10)`



> `plot3d((x2 + y2 - 1) · (x2 + y2 - 2), x = -1.3..1.3, y = -1.3..1.3, numpoints = 5000, style = surfacecontour, shading = xyz, axes = boxed, lightmodel = light3, glossiness = .5, contours = 10)`

