

Expert Tips II

The intersection curve of the two cylinders of the previous example is an infinitely thin line. An infinitely thin line is a line painted with a pencil of thickness 0. Using the formula

$$f^2 + g^2 - a = 0$$

we can calculate the intersection curves of two surfaces f and g . Since the sum $f^2 + g^2$ of two squares is only 0 if both summands are 0, you get for $a = 0$ the intersection curve given by $f = 0$ and $g = 0$. The parameter a distorts the equation: it adds thickness to the pencil the intersection curve is drawn with. If you change a you can make the intersection curve more visible.

Congratulations, you are now a SURFER expert. Enjoy creating and inventing new forms!