

Test_Jupyter_1

September 17, 2018

```
In [1]: z1(x) = 5^x
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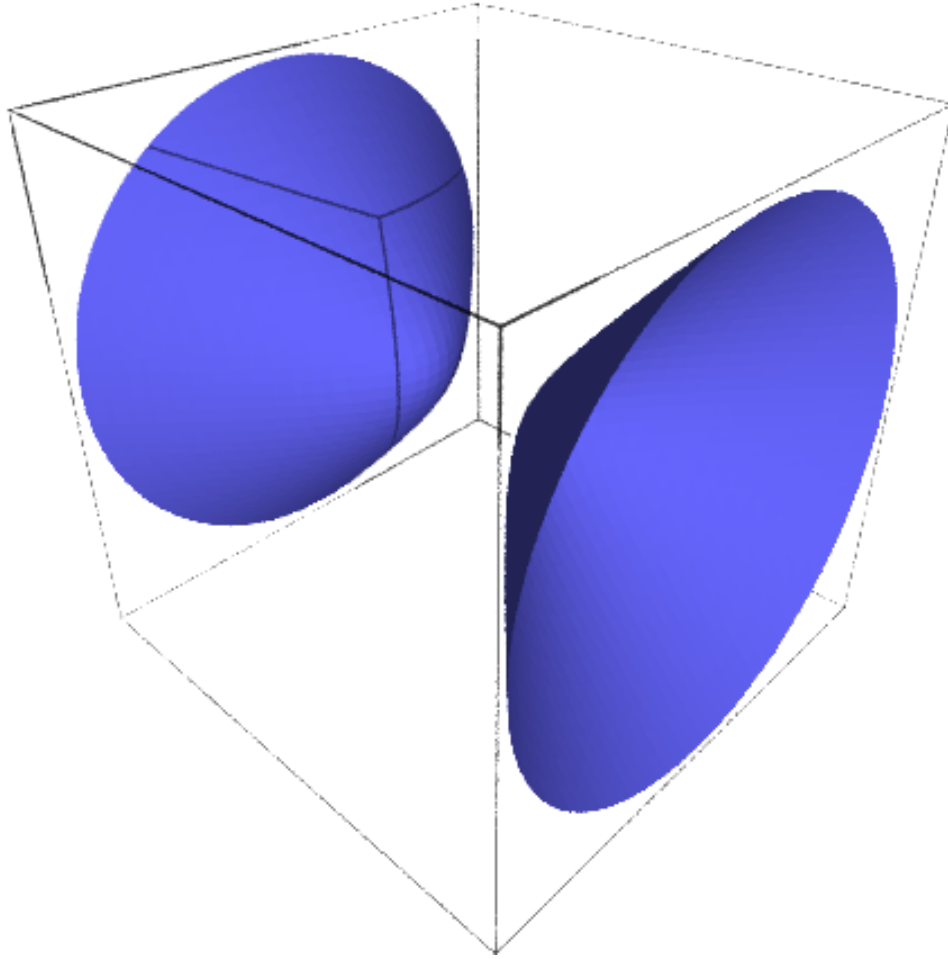
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In [2]: z2(x) = x^5
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In [3]: S = solve(z1(x) == z2(x), x, to_poly_solve=True)
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In [4]: F(x, y, z) = x^2 - y^2 - z^2
```

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In [5]: implicit_plot3d(F(x, y, z) == 1,  
                        (x, -4, 4), (y, -4, 4), (z, -4, 4), viewer='tachyon')
```

```
Out[5]:
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In [6]: latex(S)

Out [6]: $\left[x = -\frac{5}{\sqrt{5}}, \operatorname{W}\left(-\frac{1}{20}\sqrt{5}\right), \sqrt{5} \log\left(\frac{1}{20}\sqrt{5}\right) \right]$

$$\begin{aligned}
& [x = -\frac{5 W(-\frac{1}{20} \sqrt{5} \log(5) - \frac{1}{20} i \sqrt{2 \sqrt{5} + 10} \log(5) + \frac{1}{20} \log(5))}{\log(5)}, \\
& x = -\frac{5 W(\frac{1}{20} \sqrt{5} \log(5) - \frac{1}{20} i \sqrt{-2 \sqrt{5} + 10} \log(5) + \frac{1}{20} \log(5))}{\log(5)}, \\
& x = -\frac{5 W(\frac{1}{20} \sqrt{5} \log(5) + \frac{1}{20} i \sqrt{-2 \sqrt{5} + 10} \log(5) + \frac{1}{20} \log(5))}{\log(5)}, \\
& x = -\frac{5 W(-\frac{1}{20} \sqrt{5} \log(5) + \frac{1}{20} i \sqrt{2 \sqrt{5} + 10} \log(5) + \frac{1}{20} \log(5))}{\log(5)}, \\
& \quad \quad \quad x = -\frac{5 W(-\frac{1}{5} \log(5))}{\log(5)}]
\end{aligned}$$

In []: