

Zu Aufgabe 2

Ausgangsposition

Out[40]= {1, 1, 1}

Drehung um die z-Achse um 60 Grad

Out[13]= $\left\{ \frac{1}{2} - \frac{\sqrt{3}}{2}, \frac{1}{2} + \frac{\sqrt{3}}{2}, 1 \right\}$

Out[14]= {-0.366025, 1.36603, 1.}

Drehung um die x-Achse um 45 Grad

Out[17]= $\left\{ \frac{1}{2} (1 - \sqrt{3}), \frac{-1 + \sqrt{3}}{2\sqrt{2}}, \frac{3 + \sqrt{3}}{2\sqrt{2}} \right\}$

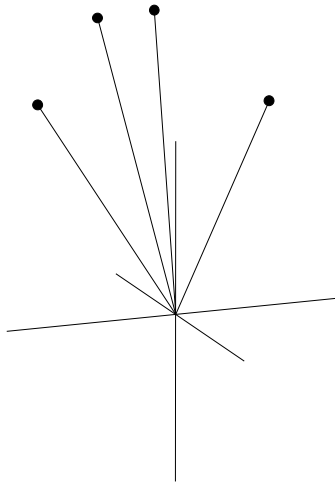
Out[18]= {-0.366025, 0.258819, 1.67303}

Drehung um die z-Achse um -60 Grad

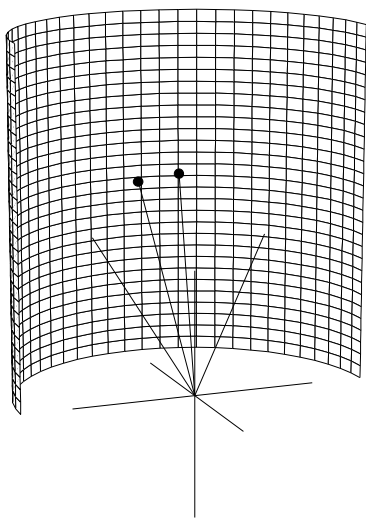
Out[19]= $\left\{ \frac{1}{4} (1 - \sqrt{3}) + \frac{1}{4} \sqrt{\frac{3}{2}} (-1 + \sqrt{3}), -\frac{1}{4} \sqrt{3} (1 - \sqrt{3}) + \frac{-1 + \sqrt{3}}{4\sqrt{2}}, \frac{3 + \sqrt{3}}{2\sqrt{2}} \right\}$

Out[20]= {0.0411312, 0.446397, 1.67303}

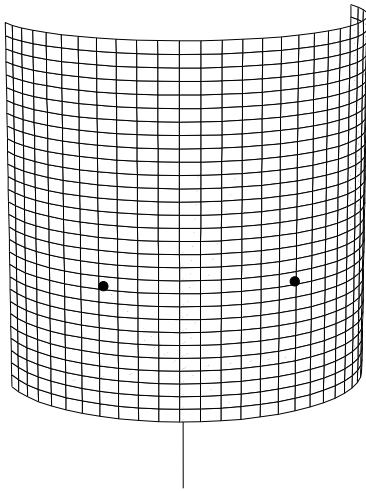
Zeichnung



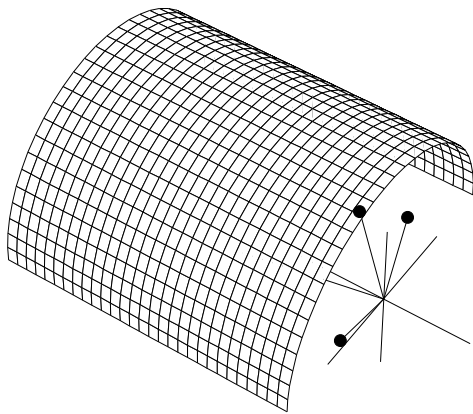
Sicht von der negativen x- und y-Achse



Sicht von der positiven x- und y-Achse



Sicht von oben



Sicht von unten

