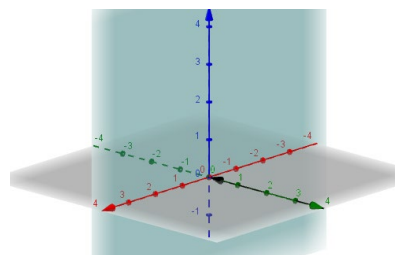


LÖSUNG ZU 667a, b, c, d):

a) $\vec{a} = \begin{pmatrix} 0 \\ 4 \\ 0 \end{pmatrix}$ $\vec{a}_r = \begin{pmatrix} 0 \\ -4 \\ 0 \end{pmatrix}$

Reflexionsgesetz:

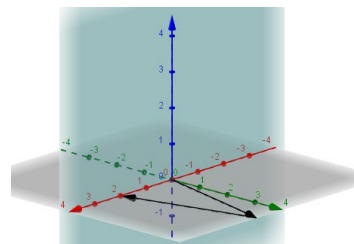
$$\begin{pmatrix} 0 \\ 4 \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ -4 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$



b) $\vec{a} = \begin{pmatrix} 1 \\ 4 \\ 0 \end{pmatrix}$ $\vec{a}_r = \begin{pmatrix} 1 \\ -4 \\ 0 \end{pmatrix}$

Reflexionsgesetz:

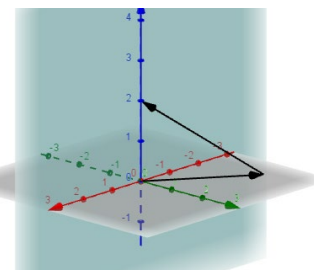
$$\begin{pmatrix} 1 \\ 4 \\ 0 \end{pmatrix} + \begin{pmatrix} 1 \\ -4 \\ 0 \end{pmatrix} = \begin{pmatrix} 2 \\ 0 \\ 0 \end{pmatrix}$$



c) $\vec{a} = \begin{pmatrix} 0 \\ 4 \\ 1 \end{pmatrix}$ $\vec{a}_r = \begin{pmatrix} 0 \\ -4 \\ 1 \end{pmatrix}$

Reflexionsgesetz:

$$\begin{pmatrix} 0 \\ 4 \\ 1 \end{pmatrix} + \begin{pmatrix} 0 \\ -4 \\ 1 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 2 \end{pmatrix}$$



d) $\vec{a} = \begin{pmatrix} 1 \\ 4 \\ 1 \end{pmatrix}$ $\vec{a}_r = \begin{pmatrix} 1 \\ -4 \\ 1 \end{pmatrix}$

Reflexionsgesetz:

$$\begin{pmatrix} 1 \\ 4 \\ 1 \end{pmatrix} + \begin{pmatrix} 1 \\ -4 \\ 1 \end{pmatrix} = \begin{pmatrix} 2 \\ 0 \\ 2 \end{pmatrix}$$

