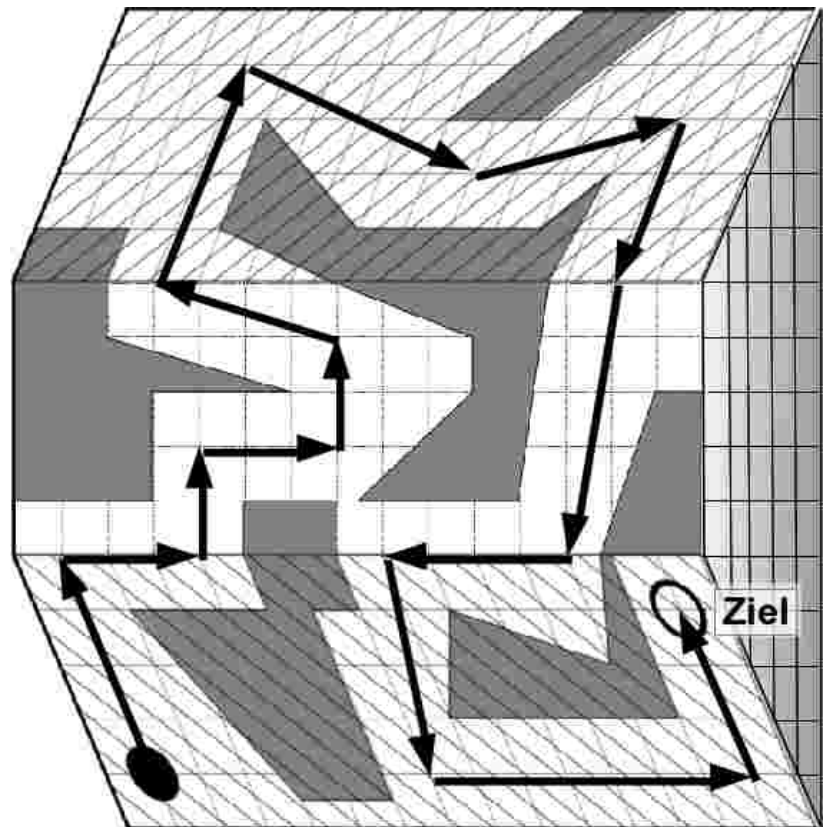


Nr.	Position	Bewegung	Schrittweite
1	(1 1 1)	$\begin{pmatrix} 0 \\ 4 \\ 4 \end{pmatrix}$	$\sqrt{32}$
2	(1 5 5)	$\begin{pmatrix} 3 \\ 0 \\ 0 \end{pmatrix}$	3
3	(4 5 5)	$\begin{pmatrix} 0 \\ 2 \\ 0 \end{pmatrix}$	2
4	(4 7 5)	$\begin{pmatrix} 3 \\ 0 \\ 0 \end{pmatrix}$	3
5	(7 7 5)	$\begin{pmatrix} 0 \\ 2 \\ 0 \end{pmatrix}$	2
6	(7 9 5)	$\begin{pmatrix} -4 \\ 1 \\ 0 \end{pmatrix}$	$\sqrt{17}$
7	(3 10 5)	$\begin{pmatrix} 0 \\ 4 \\ -4 \end{pmatrix}$	$\sqrt{32}$
8	(3 14 1)	$\begin{pmatrix} 6 \\ -2 \\ 2 \end{pmatrix}$	$\sqrt{44}$
9	(9 12 3)	$\begin{pmatrix} 4 \\ 1 \\ -1 \end{pmatrix}$	$\sqrt{18}$
10	(13 13 2)	$\begin{pmatrix} 0 \\ -3 \\ 3 \end{pmatrix}$	$\sqrt{18}$
11	(13 10 5)	$\begin{pmatrix} -1 \\ -5 \\ 0 \end{pmatrix}$	$\sqrt{26}$
12	(12 5 5)	$\begin{pmatrix} -4 \\ 0 \\ 0 \end{pmatrix}$	4
13	(8 5 5)	$\begin{pmatrix} -1 \\ -4 \\ -4 \end{pmatrix}$	$\sqrt{33}$
14	(7 1 1)	$\begin{pmatrix} 7 \\ 0 \\ 0 \end{pmatrix}$	7
15	(14 1 1)	$\begin{pmatrix} 0 \\ 3 \\ 3 \end{pmatrix}$	$\sqrt{18}$
	(14 4 4)	Ziel	



**Start**

**Ziel**

**Addition aller Vektoren:**

$$\begin{pmatrix} 0 \\ 4 \\ 4 \end{pmatrix} + \begin{pmatrix} 3 \\ 0 \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ 2 \\ 0 \end{pmatrix} + \begin{pmatrix} 3 \\ 0 \\ 0 \end{pmatrix} + \dots + \begin{pmatrix} 7 \\ 0 \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ 3 \\ 3 \end{pmatrix} = \begin{pmatrix} 0+3+0+3+\dots+7+0 \\ 4+0+2+0+\dots+0+3 \\ 4+0+0+0+\dots+0+3 \end{pmatrix} = \begin{pmatrix} 13 \\ 3 \\ 3 \end{pmatrix}$$

**Was hat der Summen-Vektor  $\begin{pmatrix} 13 \\ 3 \\ 3 \end{pmatrix}$  zu bedeuten?**