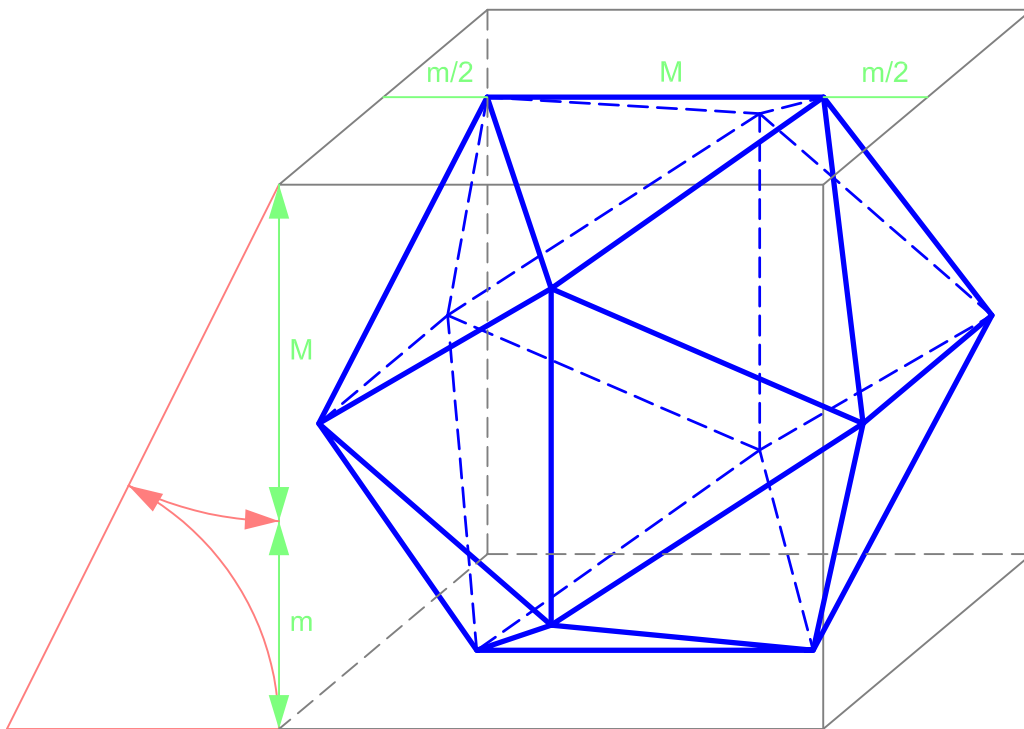


Darstellende Geometrie

Kunst und Design, 1. Jahrgang



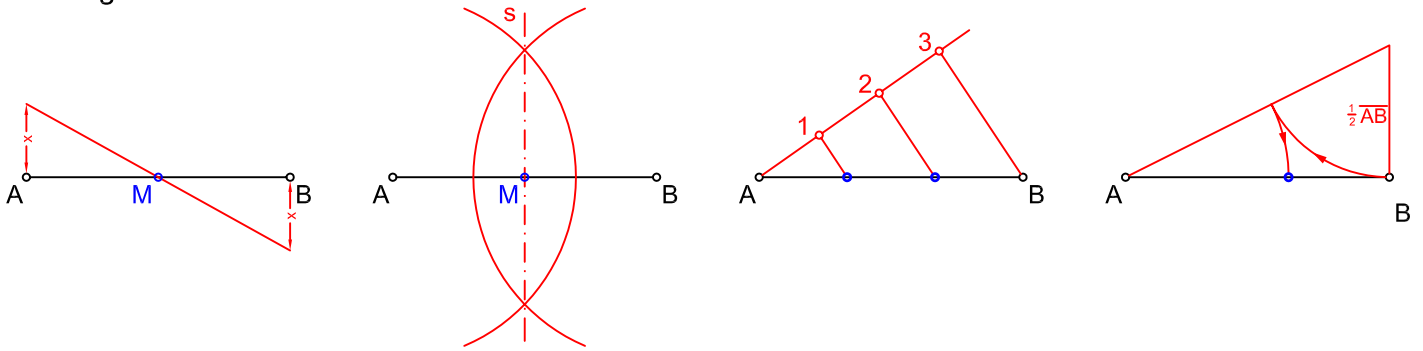
Erstellt von

Hannes Rassi

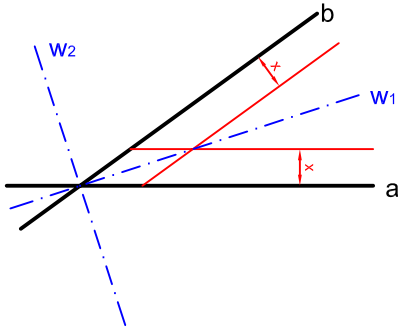
Unter Mitwirkung von:

Wolfgang Hötzl, Walter Pflüger, Heinz Slepcevic und Valentin Uschnig

Teilung einer Strecke AB:

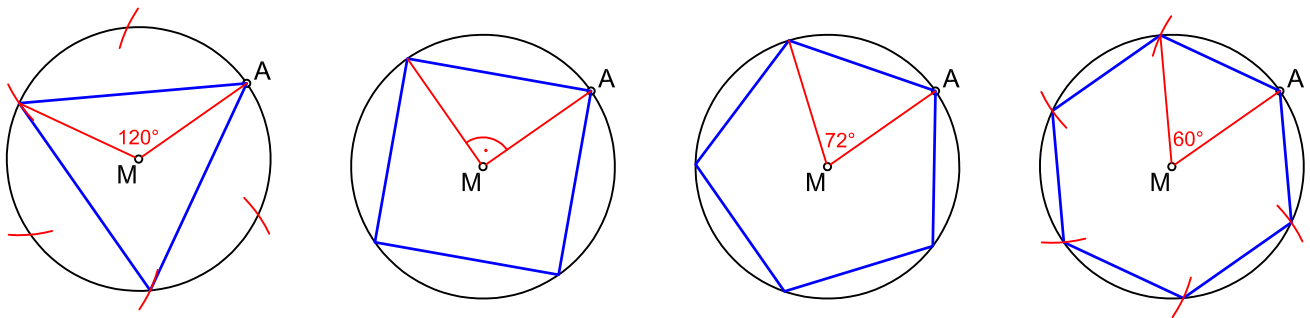


Teilung eines Winkels:

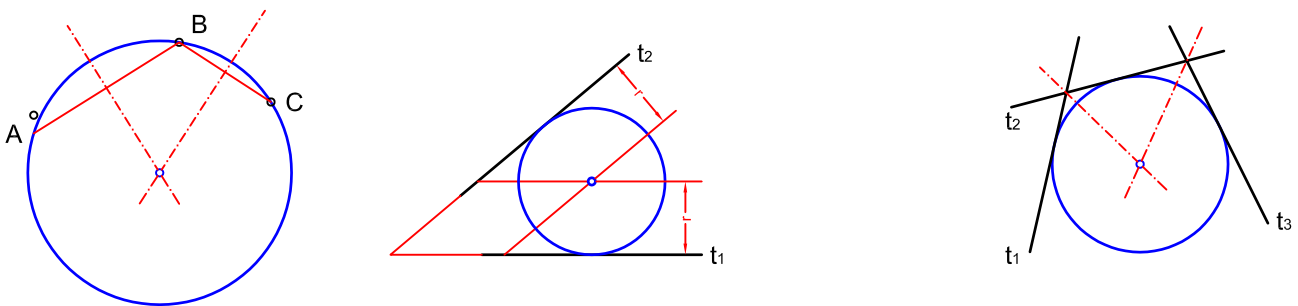


Die 3-Teilung eines Winkels ist mit Zirkel und Lineal nicht möglich!

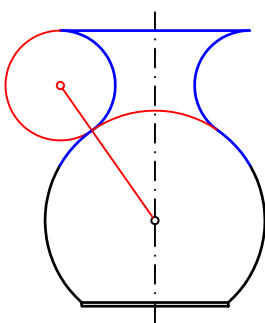
Regelmäßiges n-Eck:



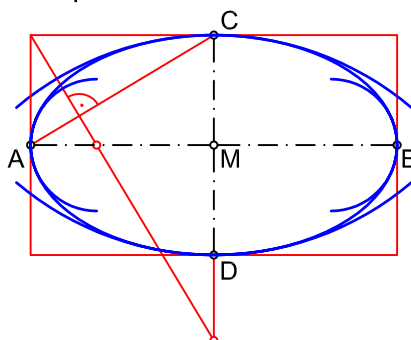
Kreis:



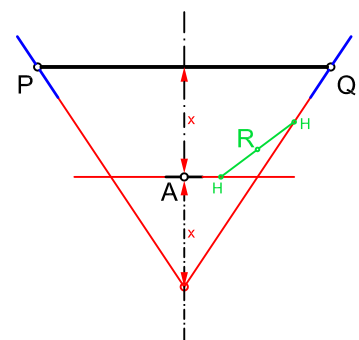
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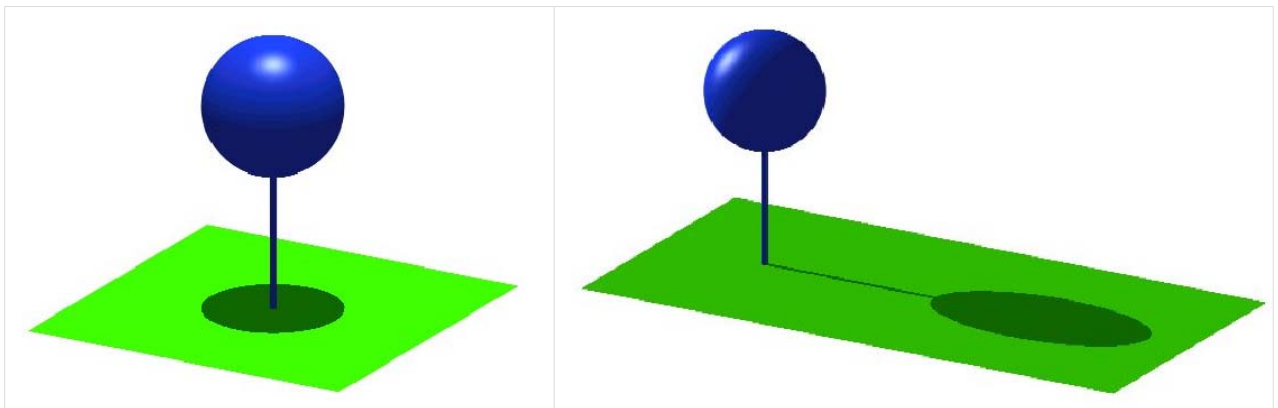
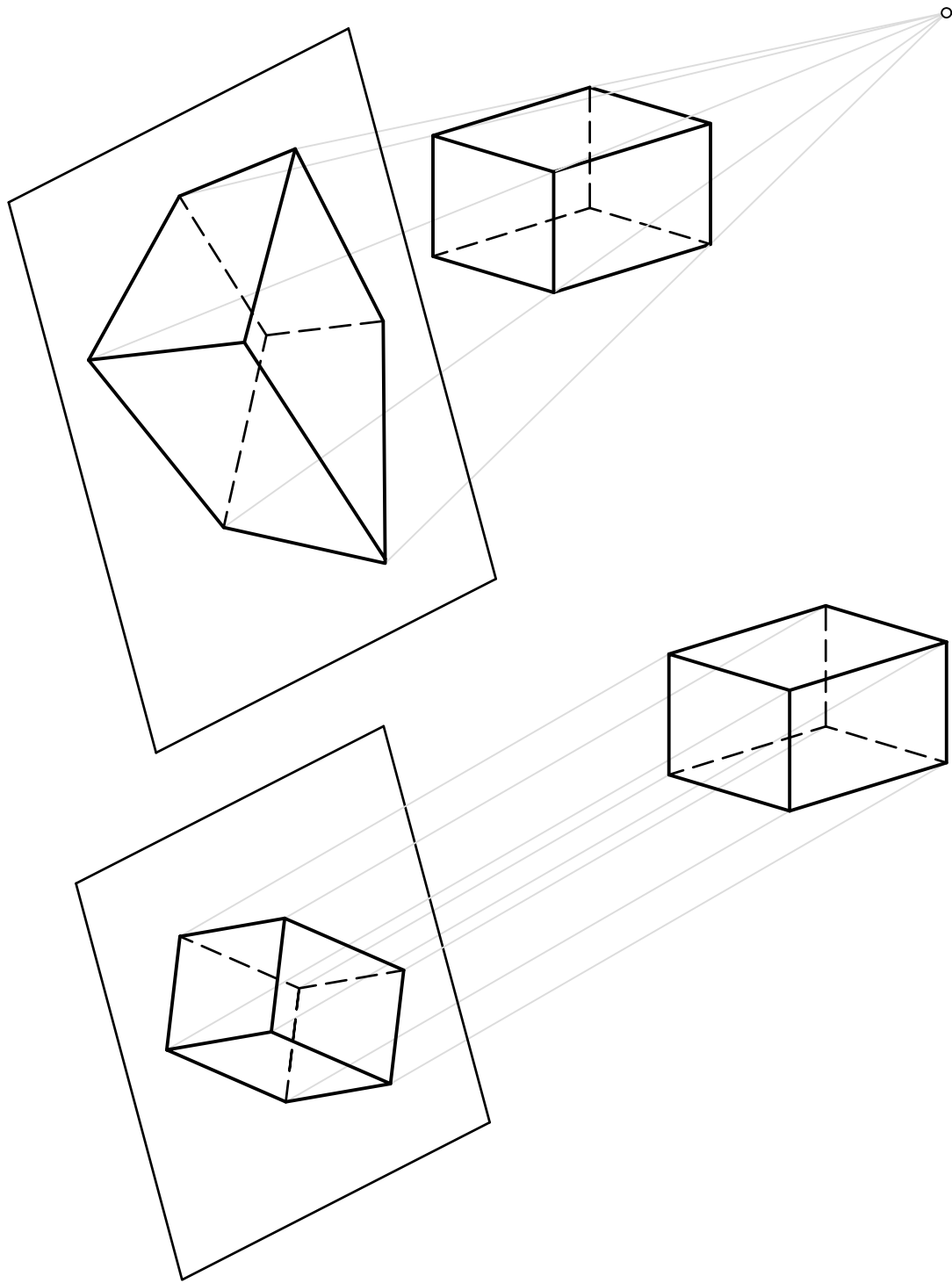


Ellipse:



Parabel:





Würfel und Kugel in Normalriss (Dimetrie: 7° ; 42° ; 0,5)

O v l

O v r

U v l

U v r

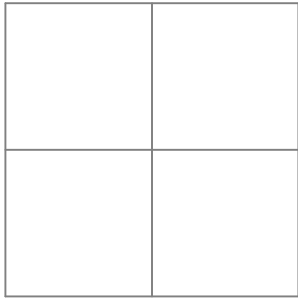
Würfel und Kugel im Schrägriss (Frontalriss: 45° ; 0,5)

O v l

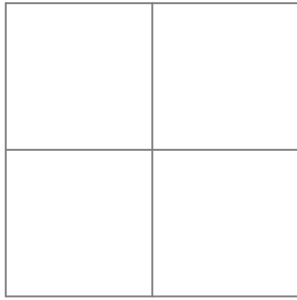
O v r

U v l

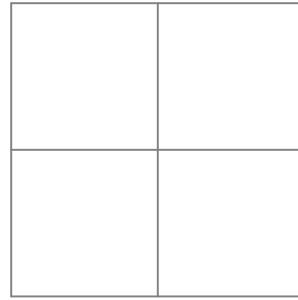
U v r



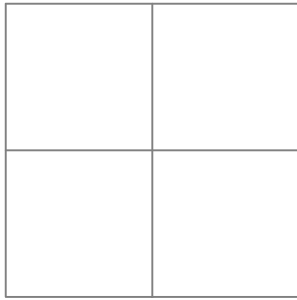
Kreuzriss
(A. v. rechts)



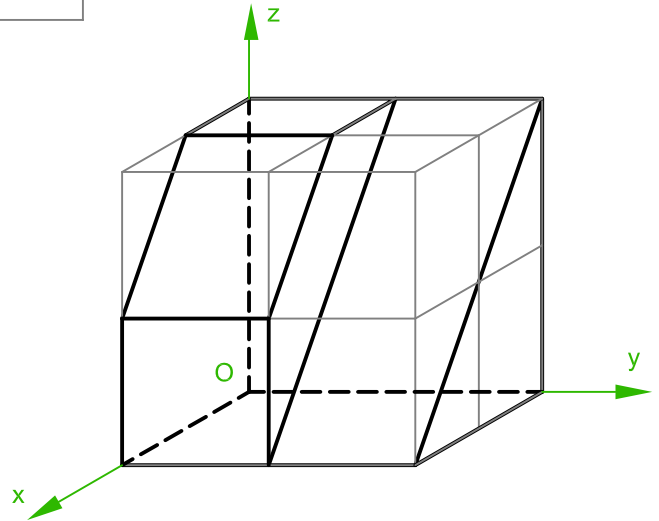
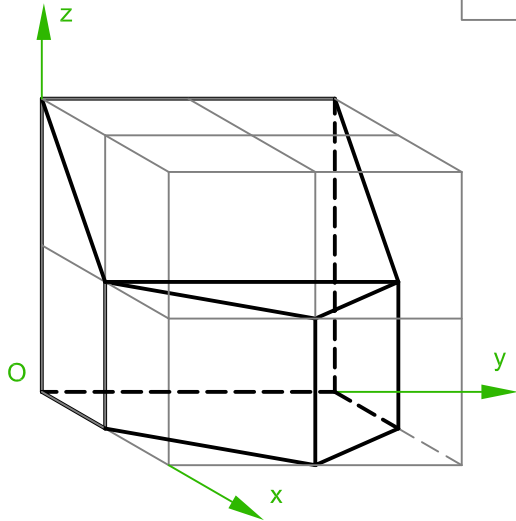
Aufriss



Kreuzriss
(A. v. links)



Grundriss



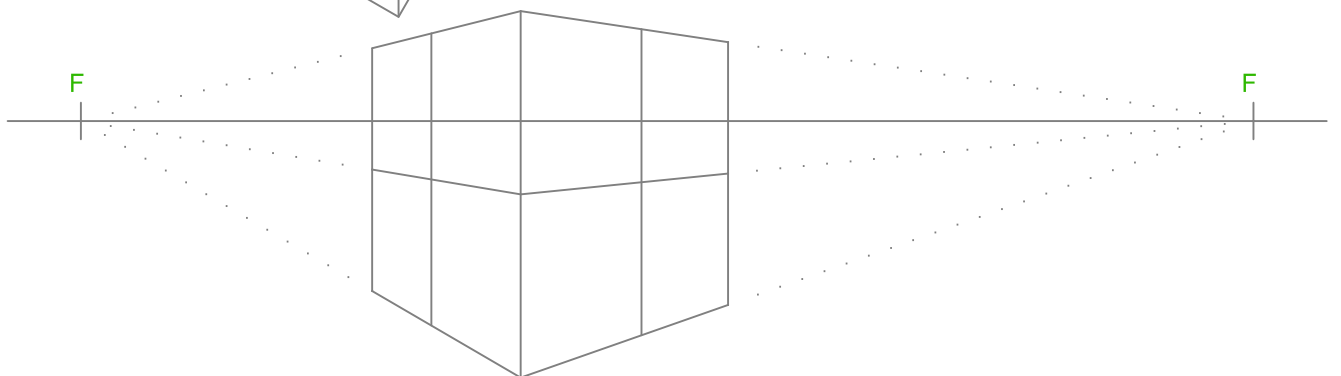
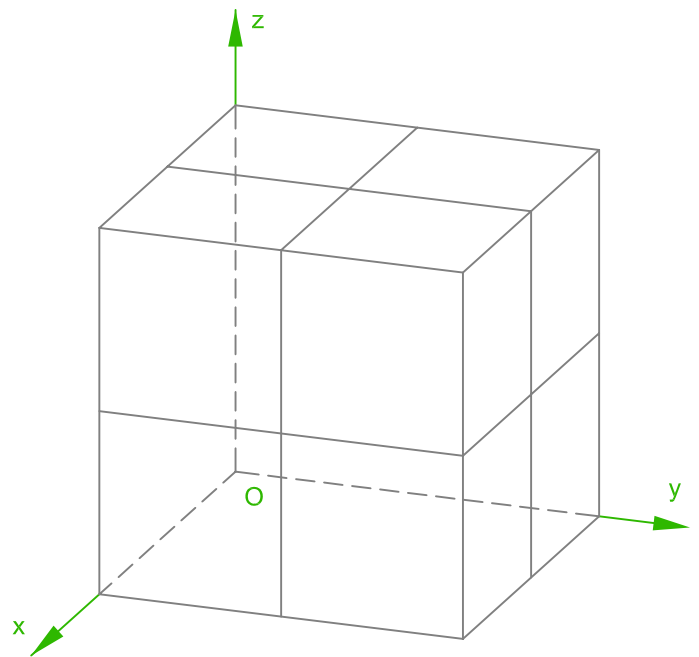
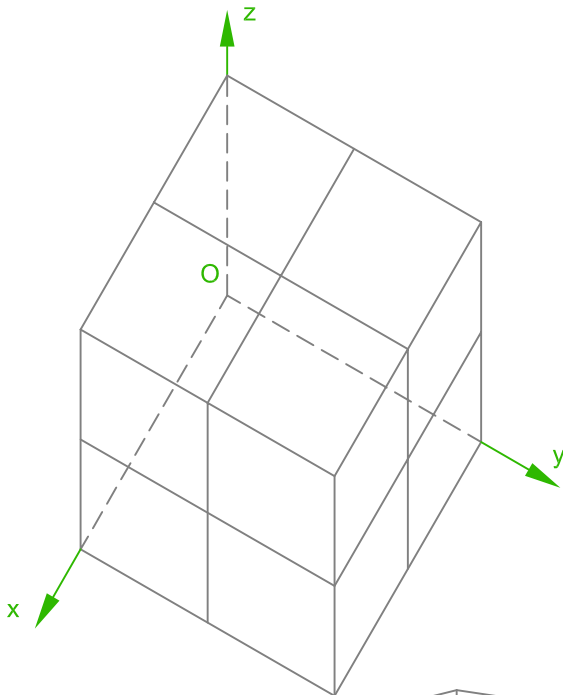
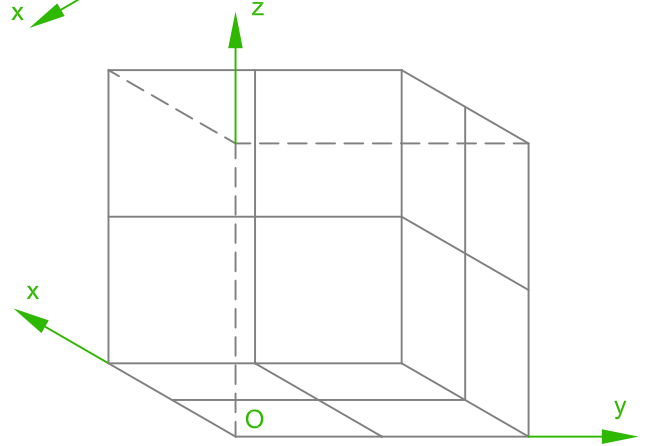
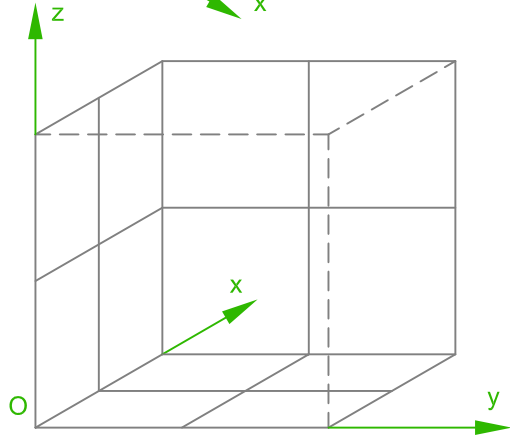
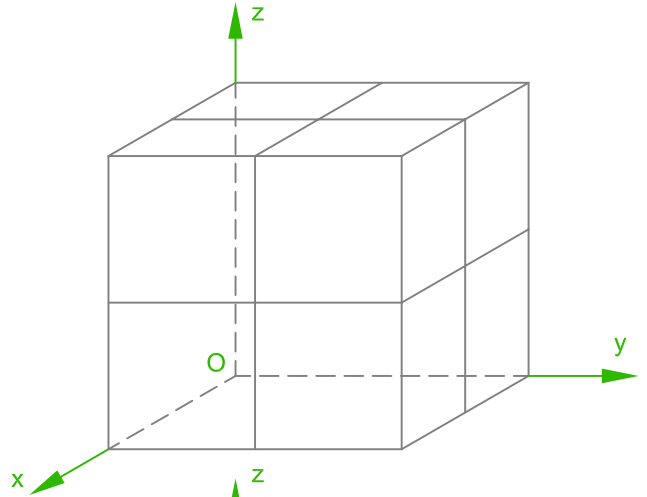
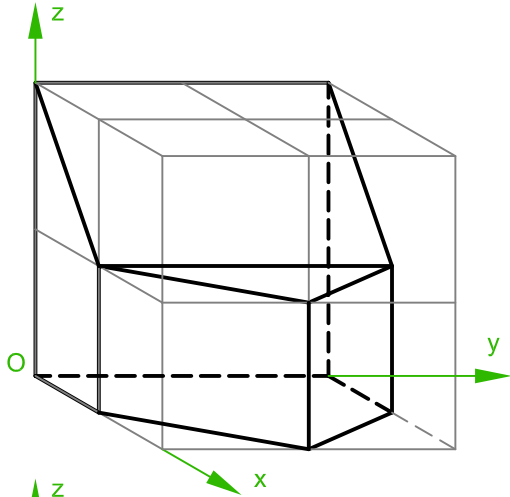
Kreuzriss
(A. v. rechts)

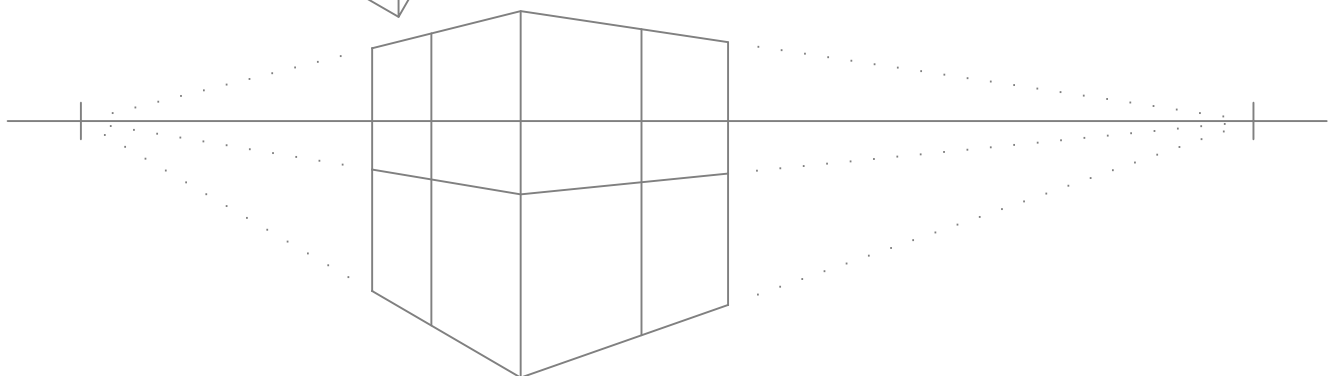
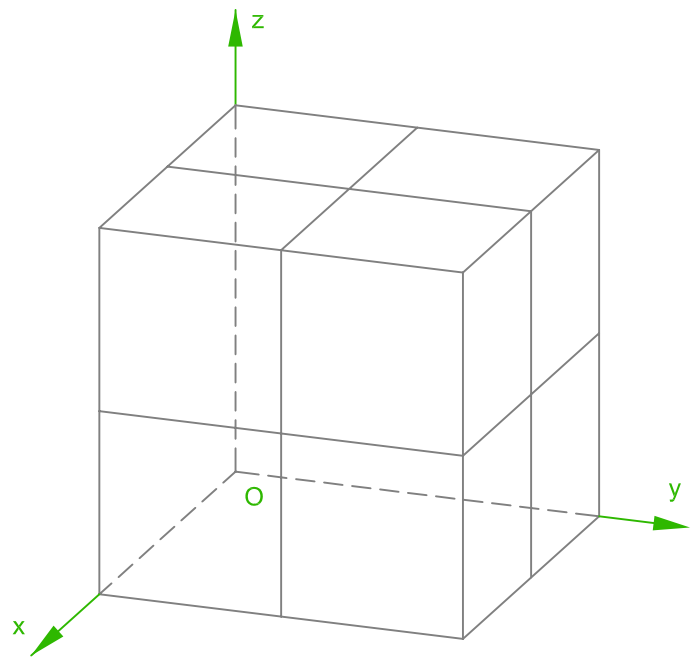
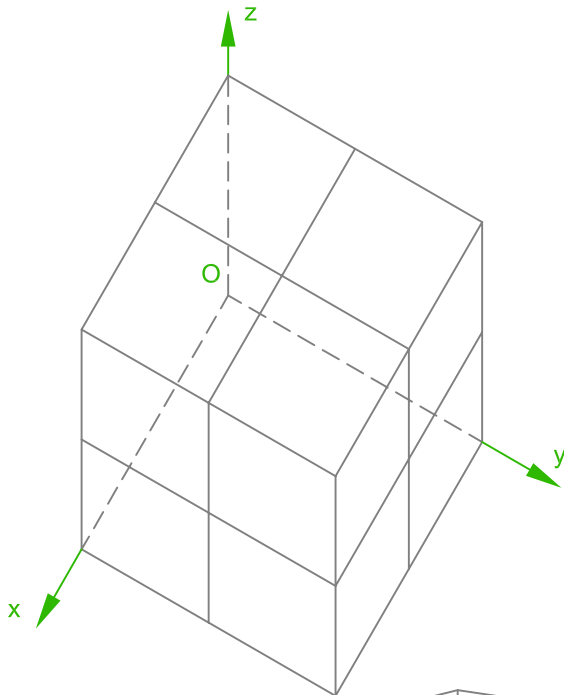
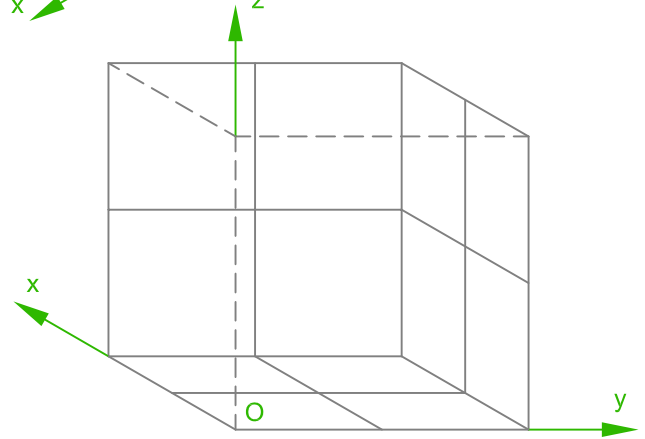
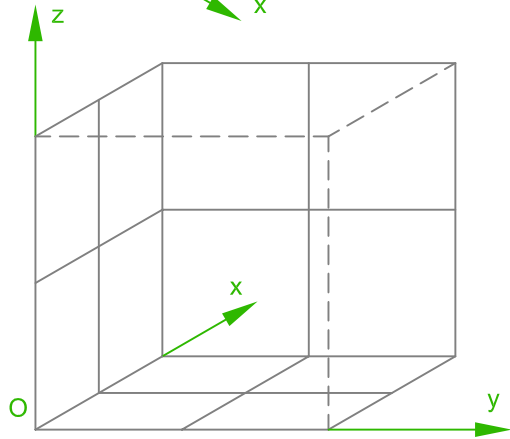
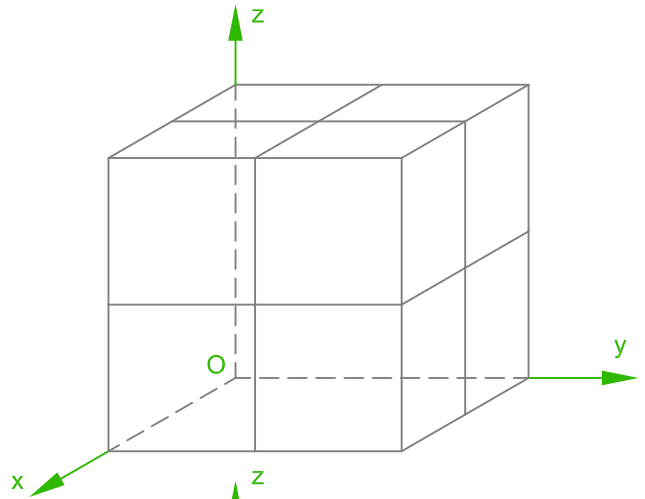
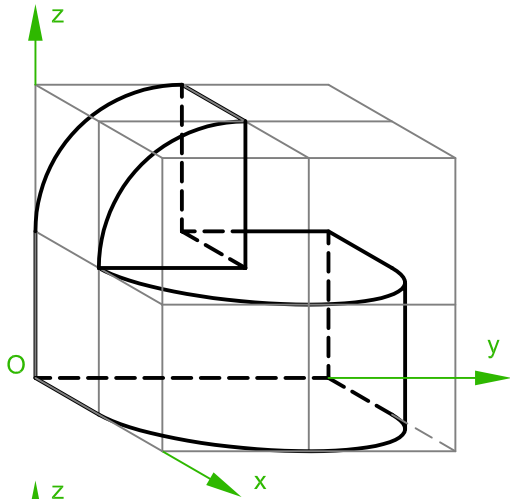
Aufriss

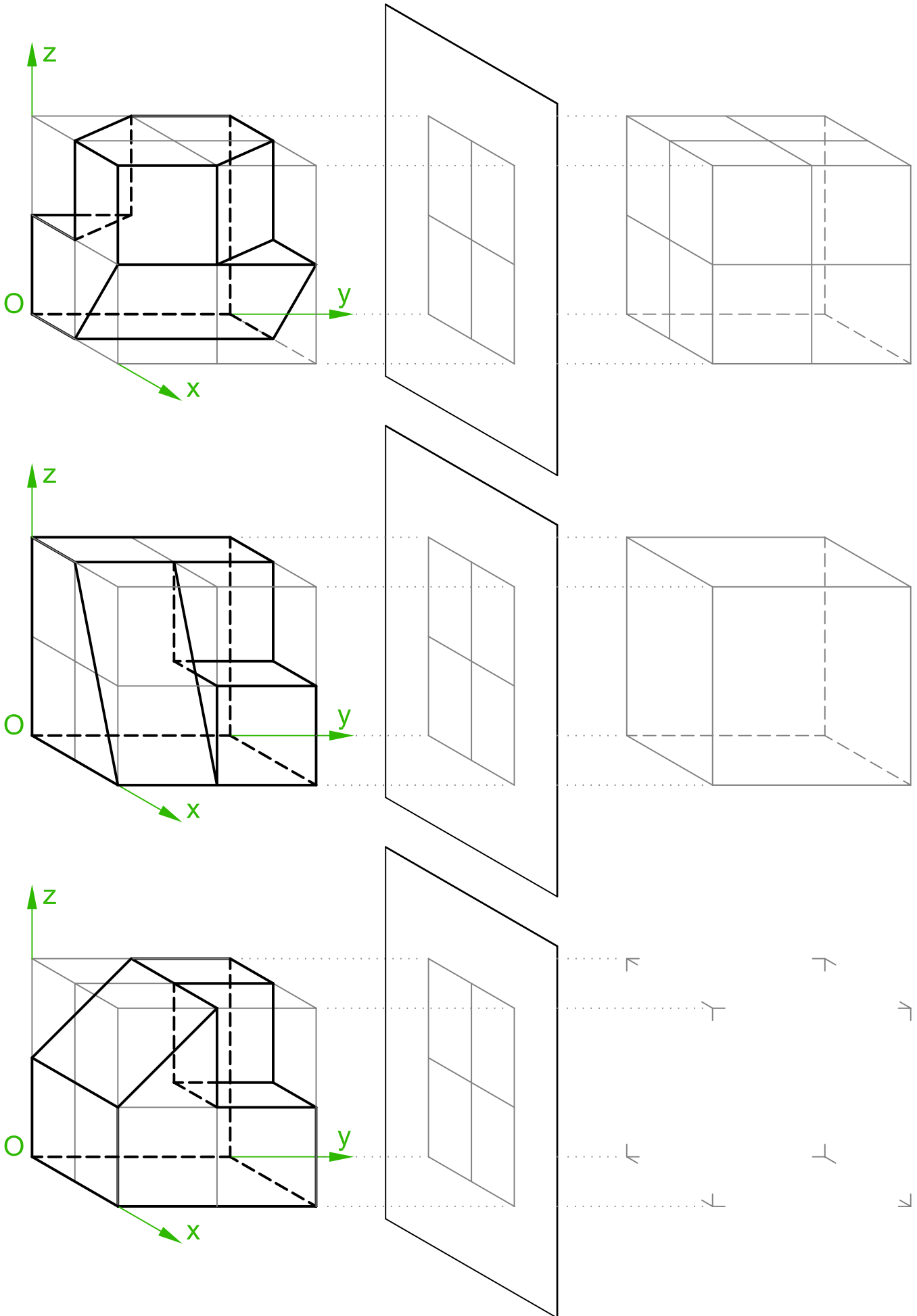
Kreuzriss
(A. v. links)

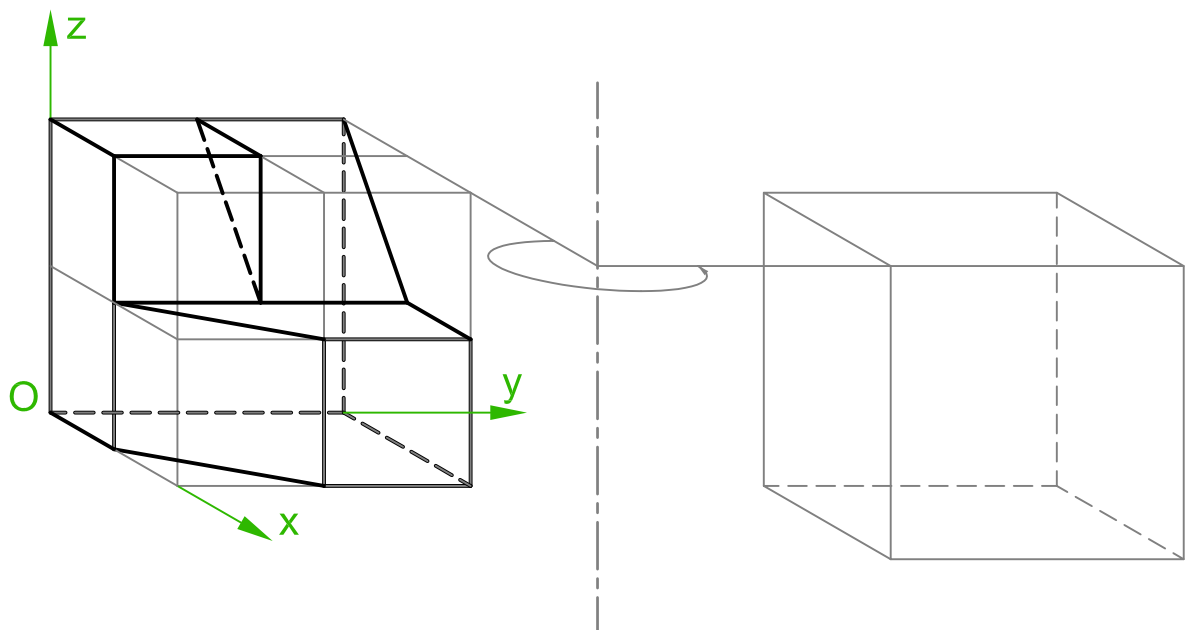
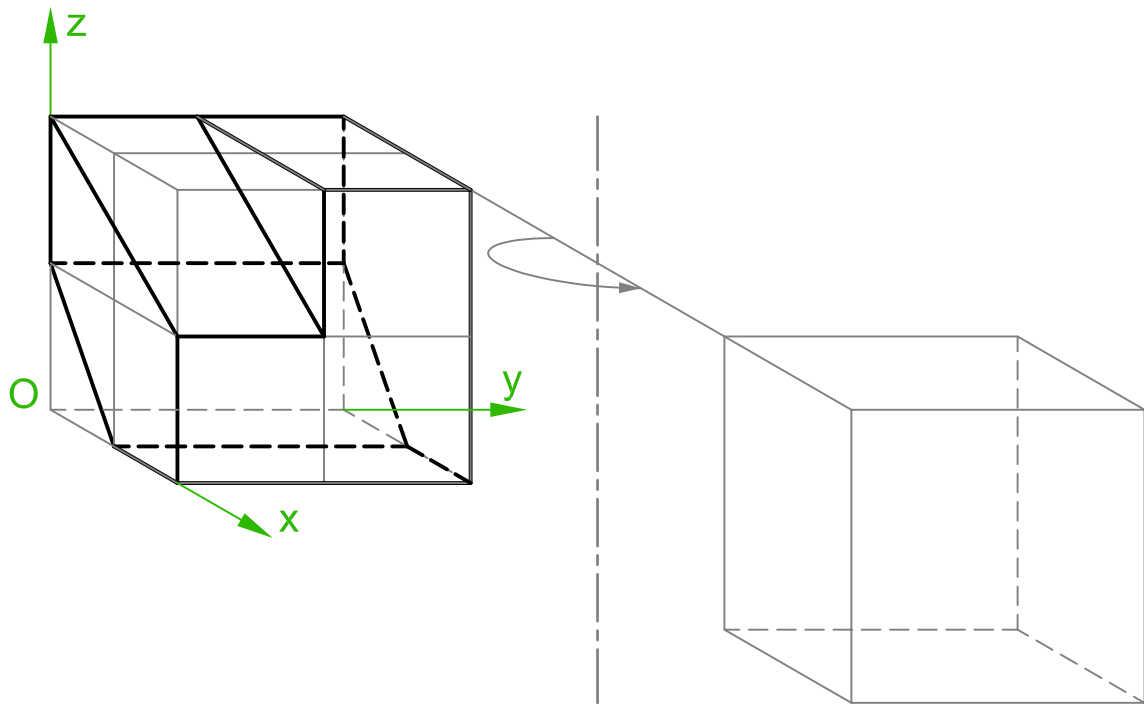
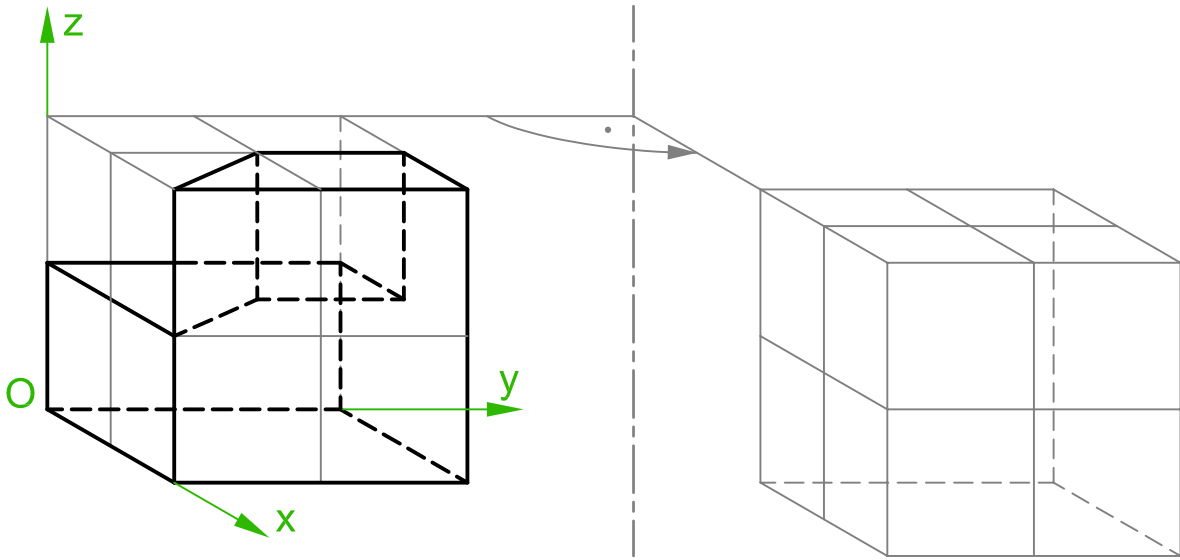


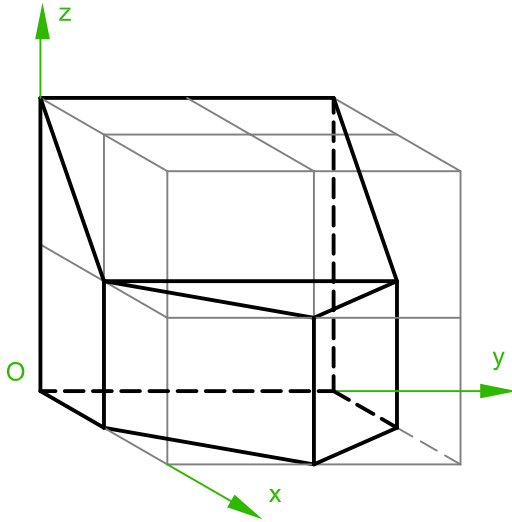
Grundriss











Punkte:

Bez.	x	y	z	Lage

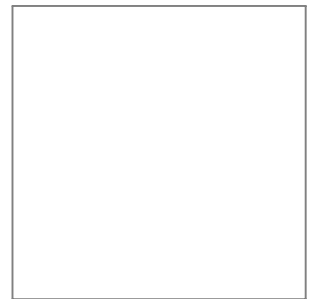
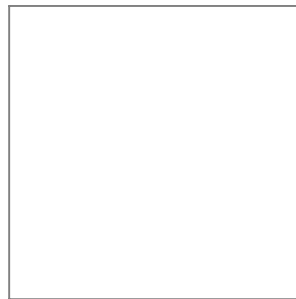
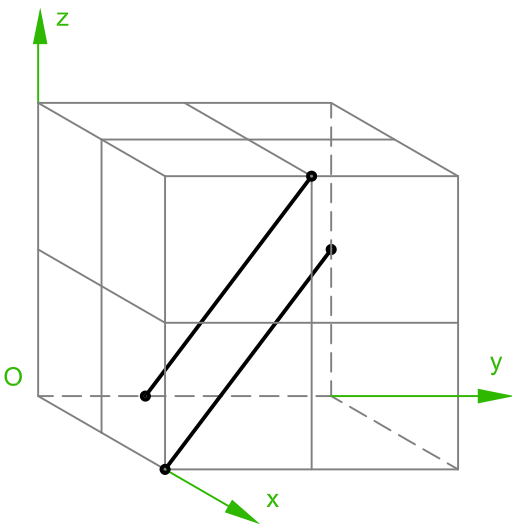
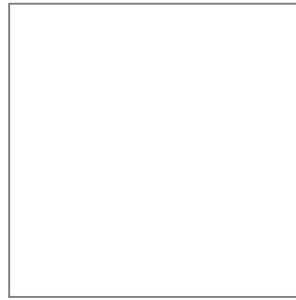
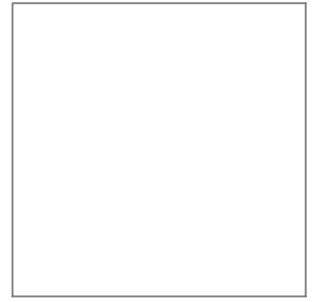
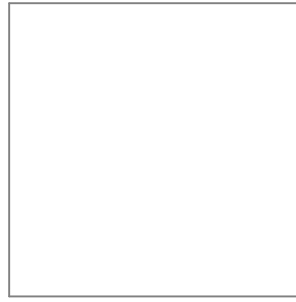
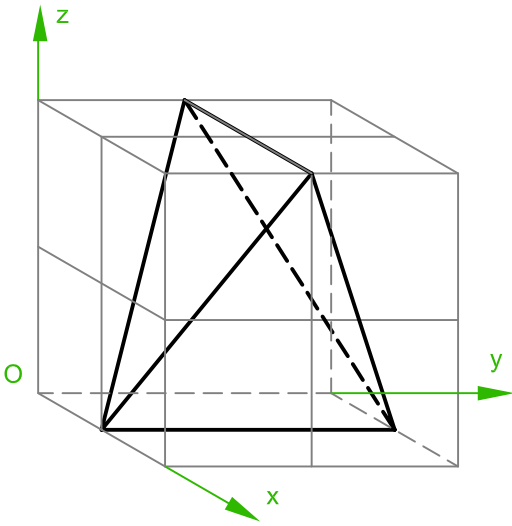
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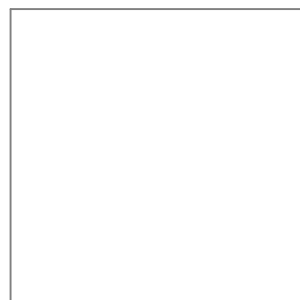
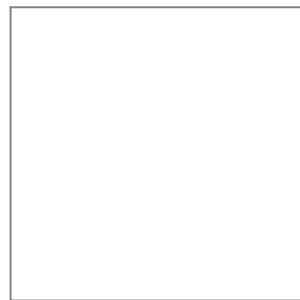
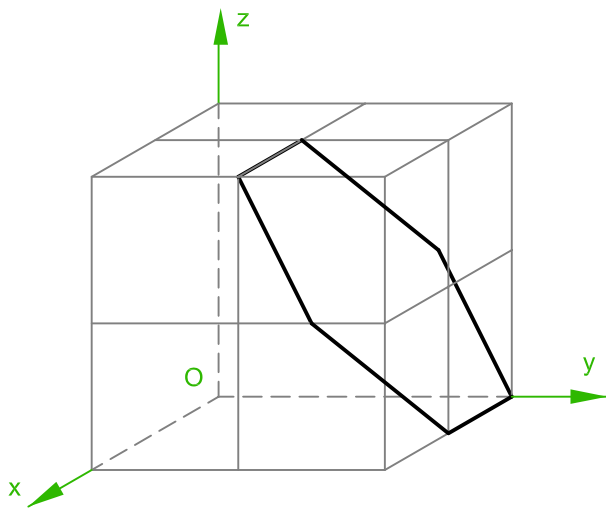
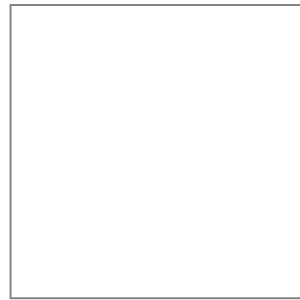
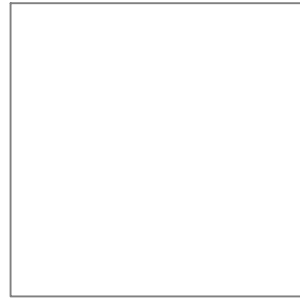
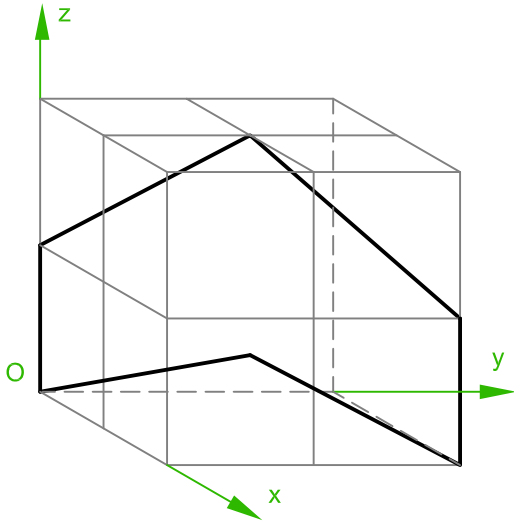
Kanten in Hauptlage:

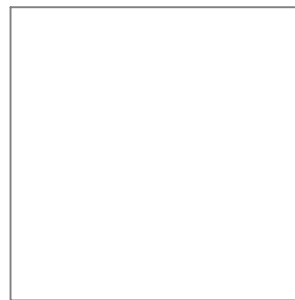
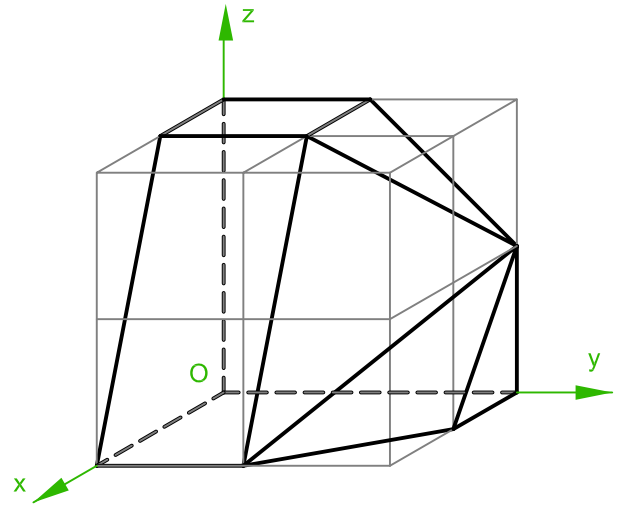
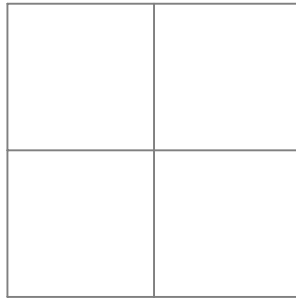
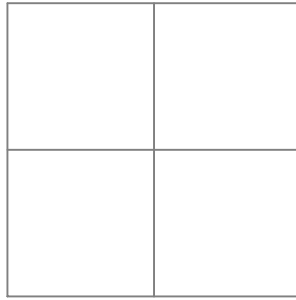
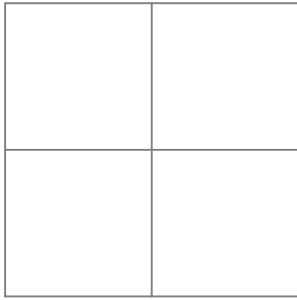
Flächen in Hauptlage

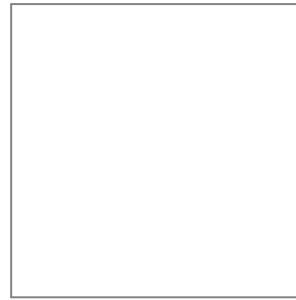
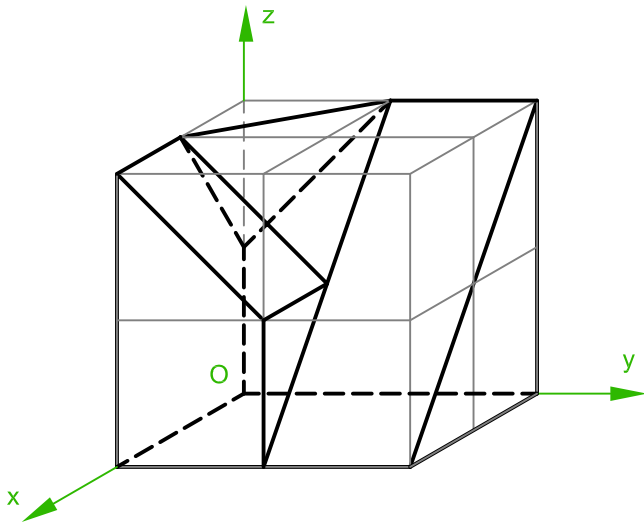
Kanten in projizierender Lage:

Flächen in projizierender Lage

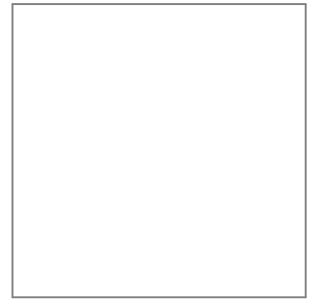




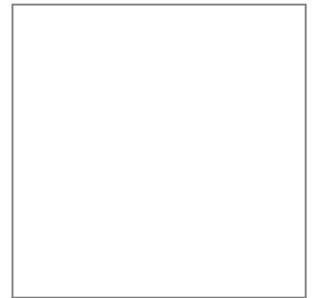




Kreuzriss
(A. v. rechts)

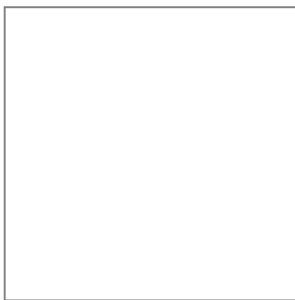


Aufriss



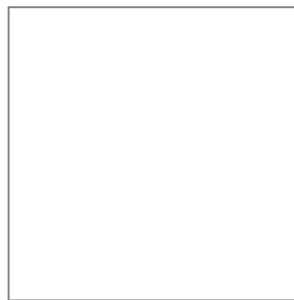
Grundriss

Schnitt mit Ebene $z = 1$



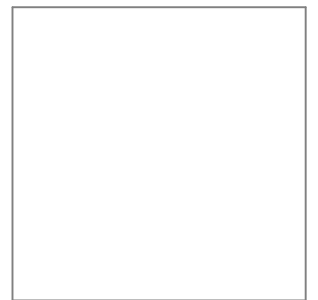
Grundriss

Schnitt mit Ebene $z = 2$



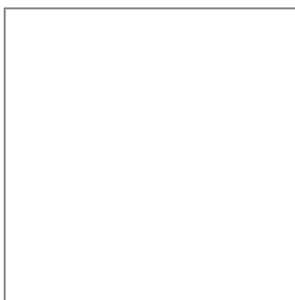
Grundriss

Schnitt mit Ebene $z = 3$



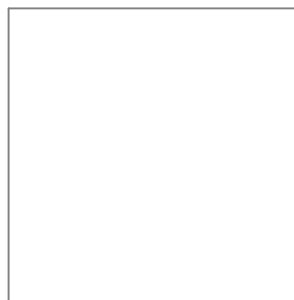
Grundriss

Schnitt mit Ebene $x = 1$



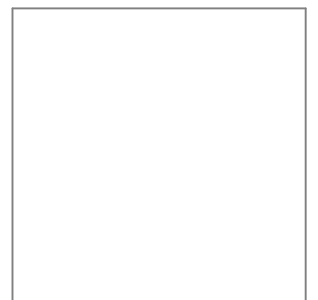
Aufriss

Schnitt mit Ebene $x = 2$



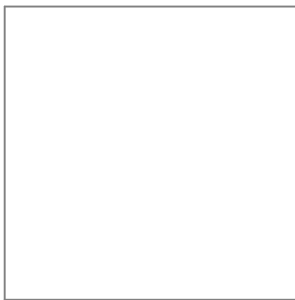
Aufriss

Schnitt mit Ebene $x = 3$



Aufriss

Schnitt mit Ebene $y = 1$



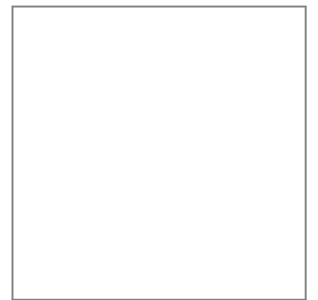
Kreuzriss
(A. v. rechts)

Schnitt mit Ebene $y = 2$

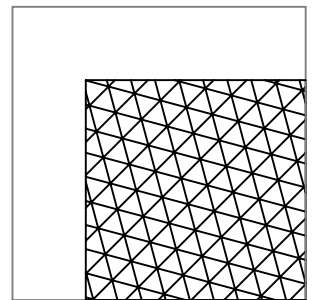
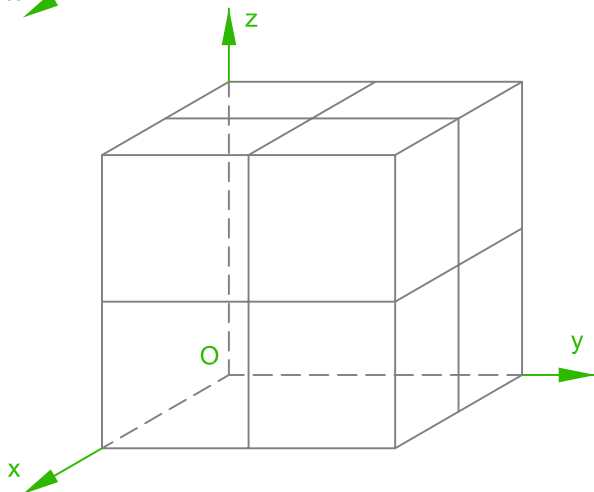
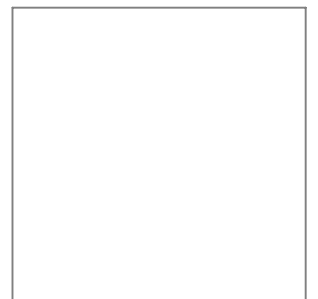
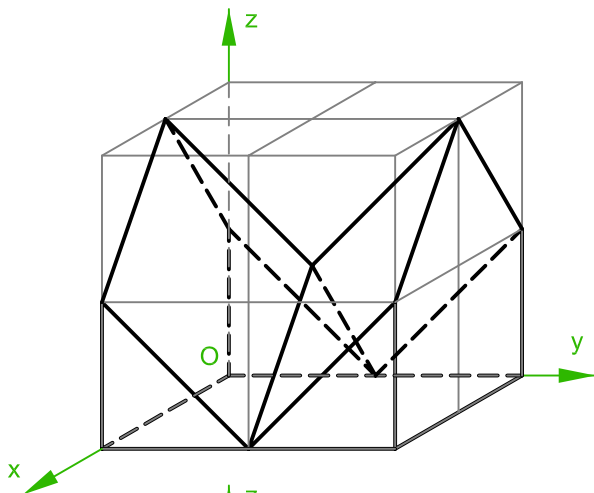
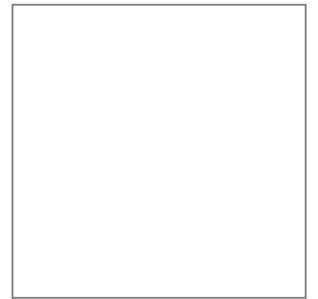
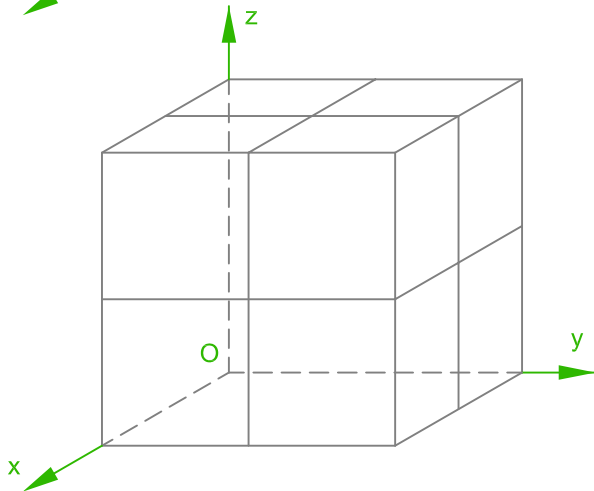
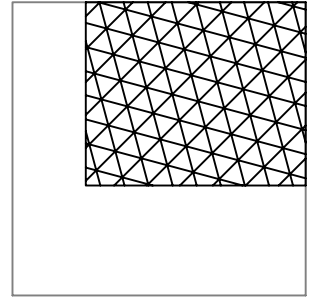
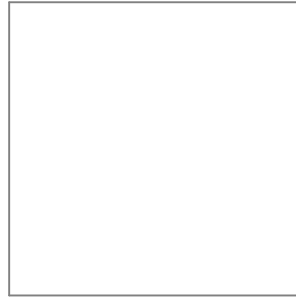
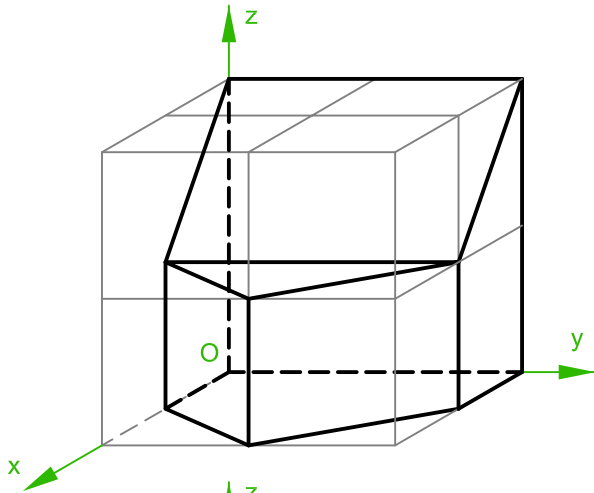


Kreuzriss
(A. v. rechts)

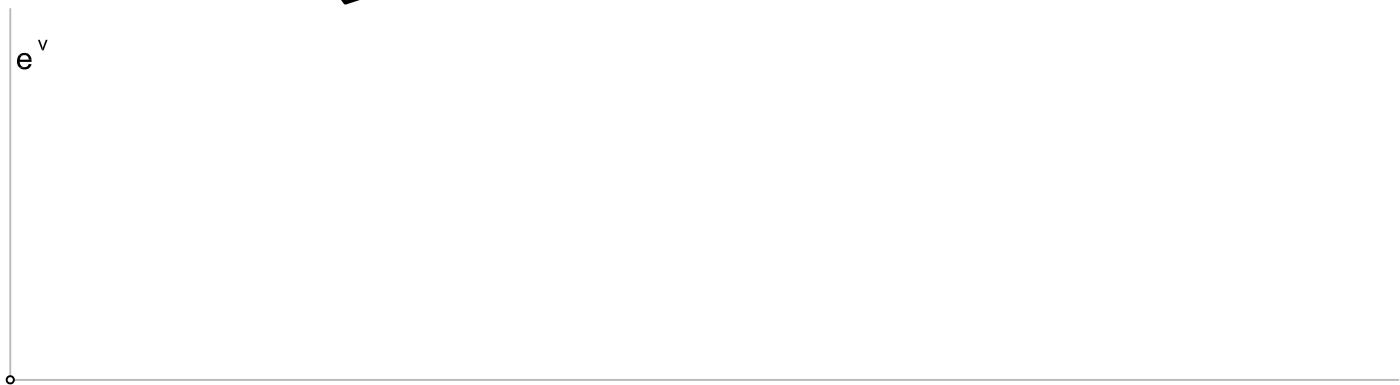
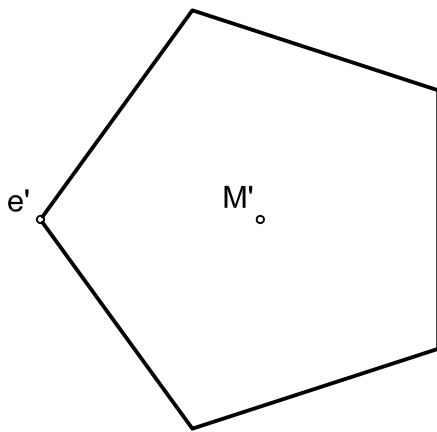
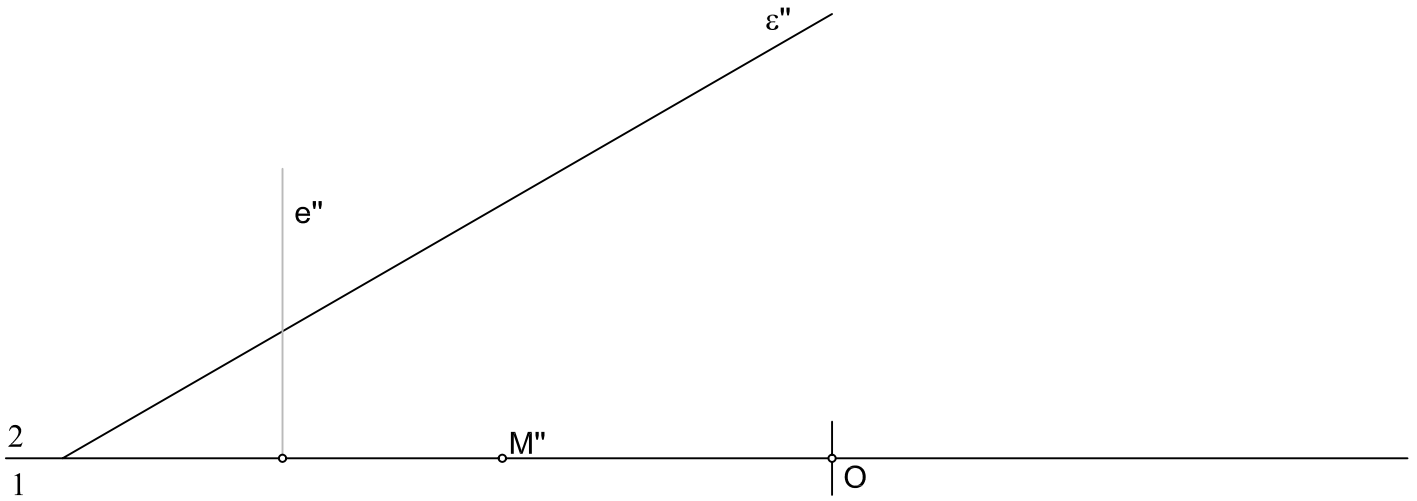
Schnitt mit Ebene $y = 3$

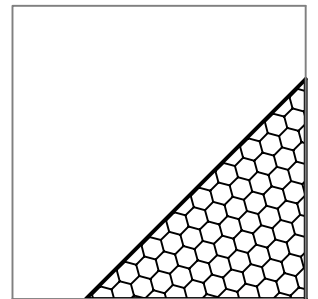
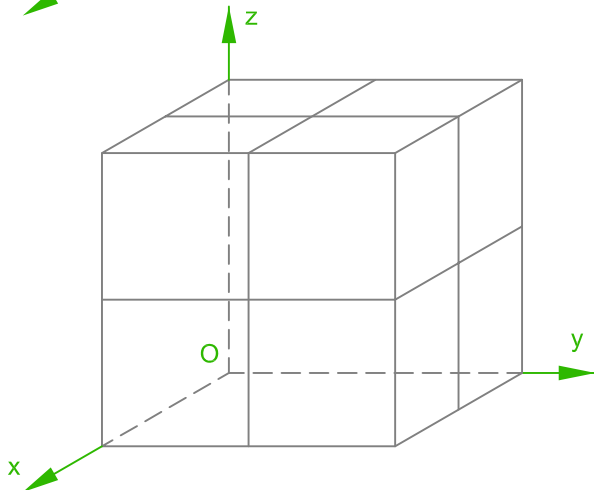
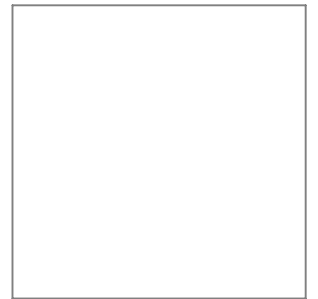
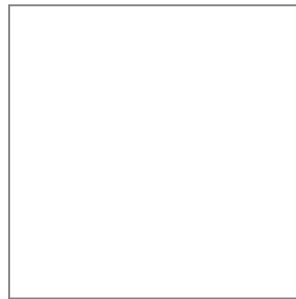
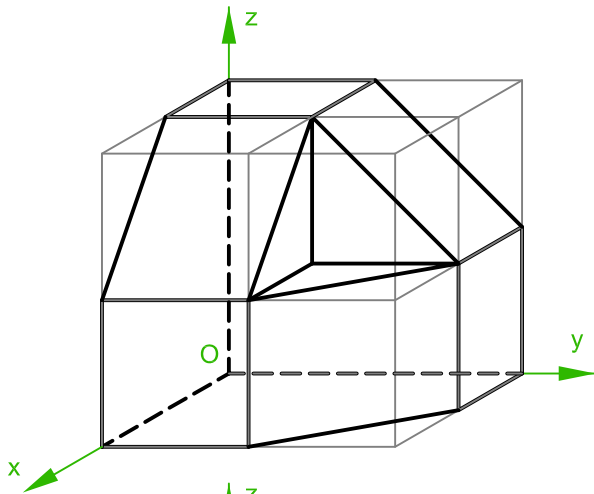
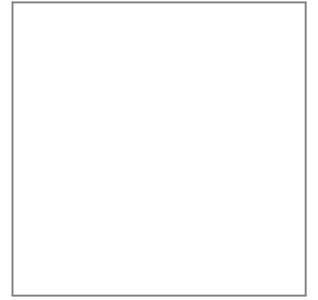
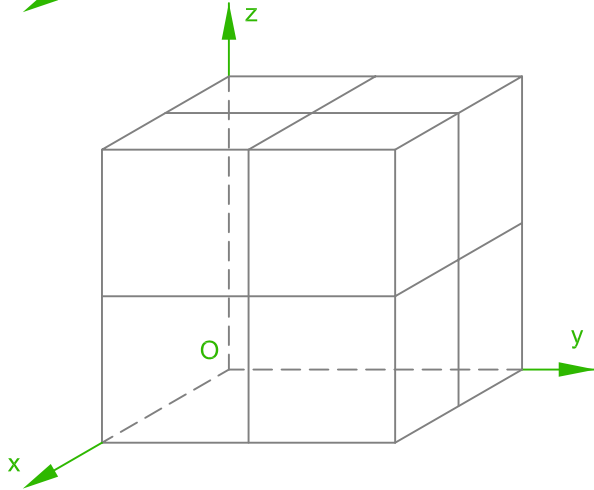
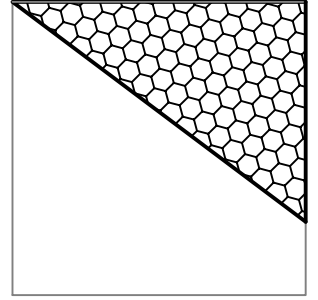
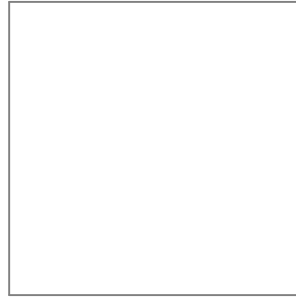
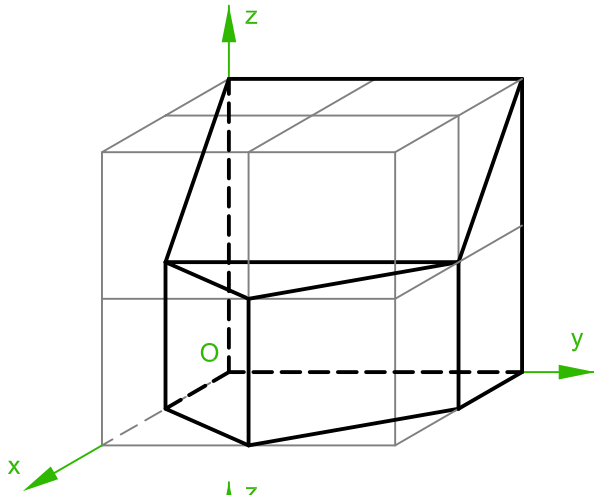


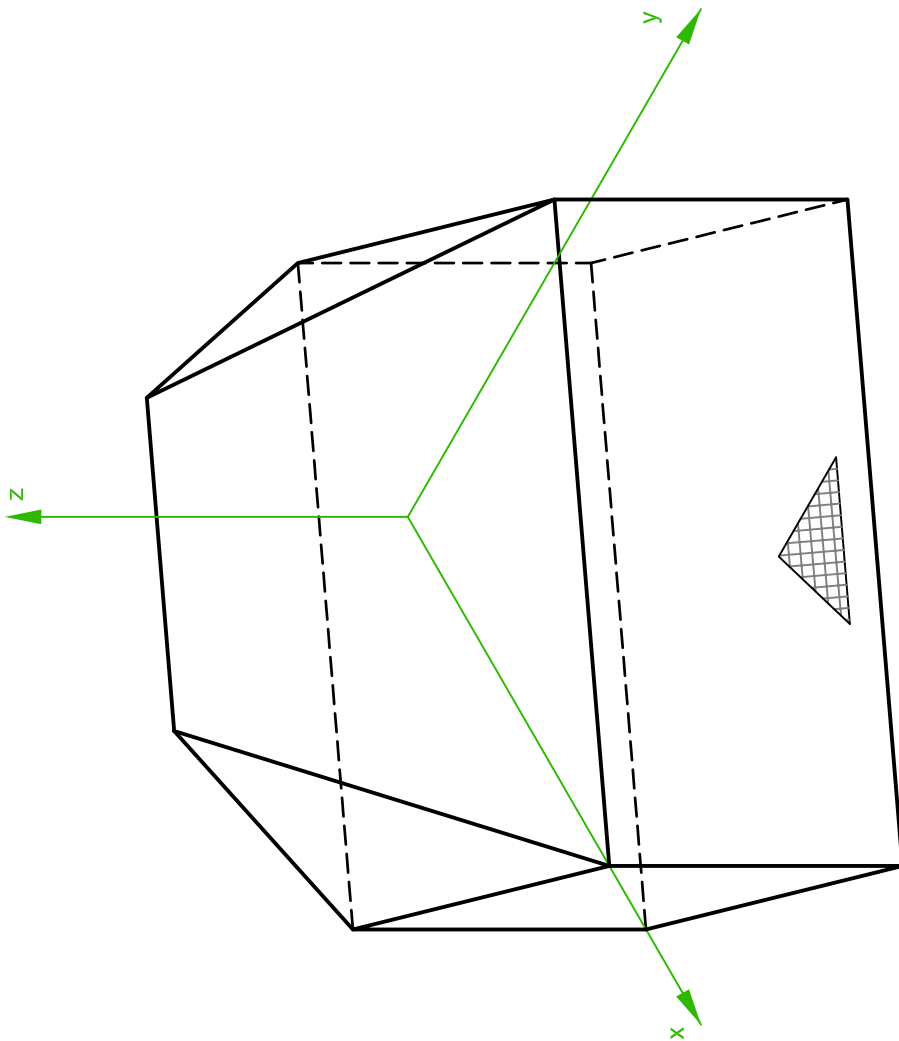
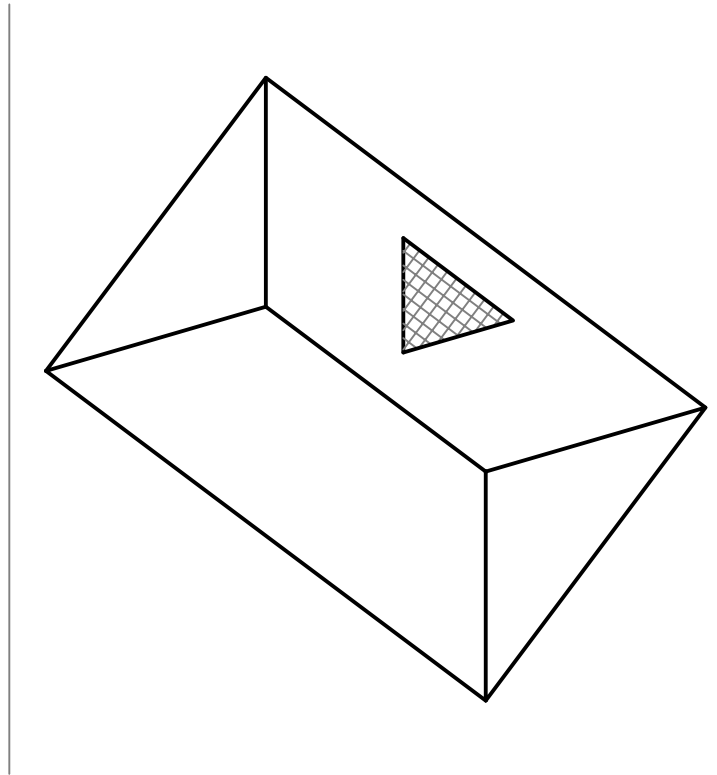
Kreuzriss
(A. v. rechts)

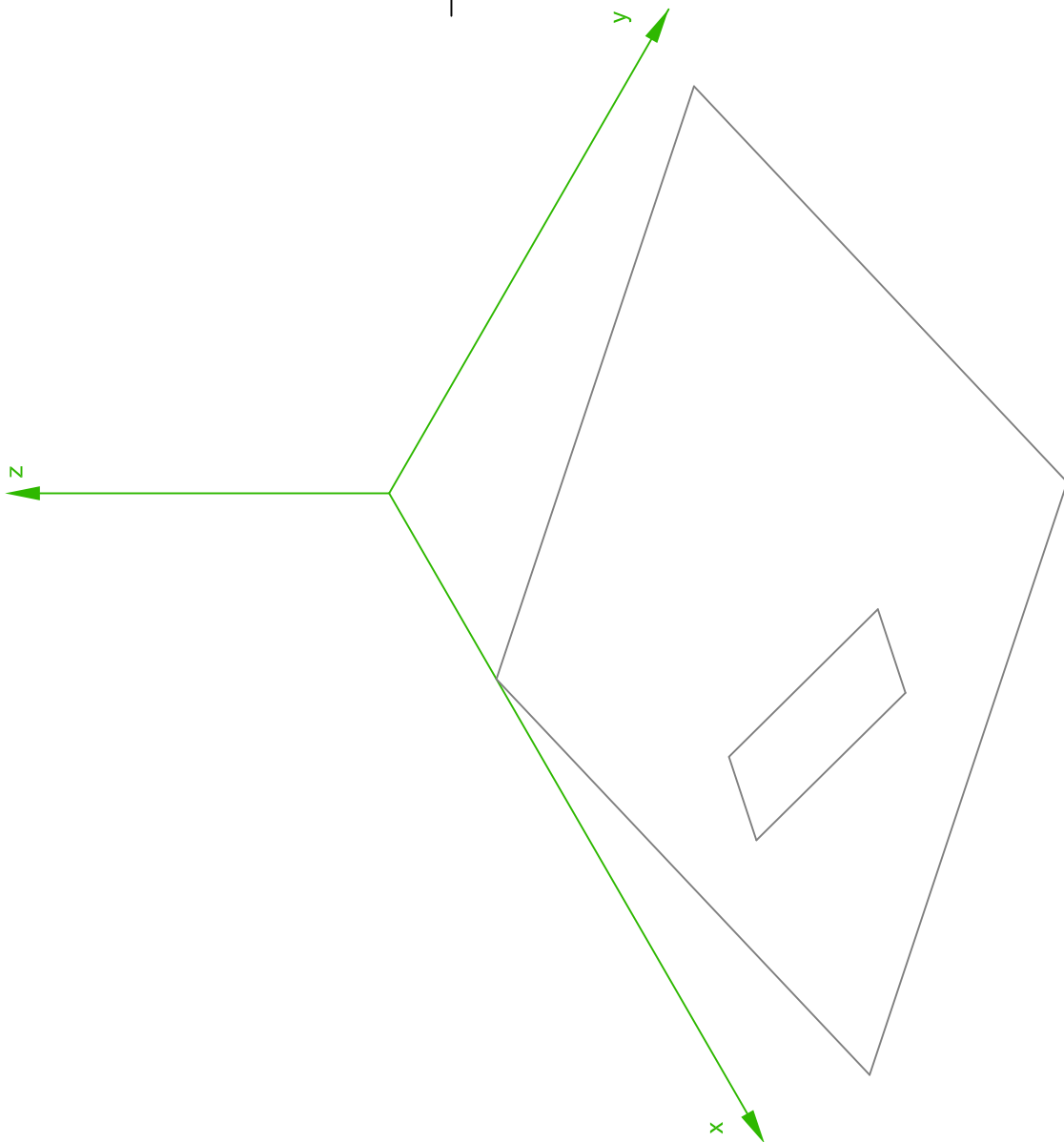
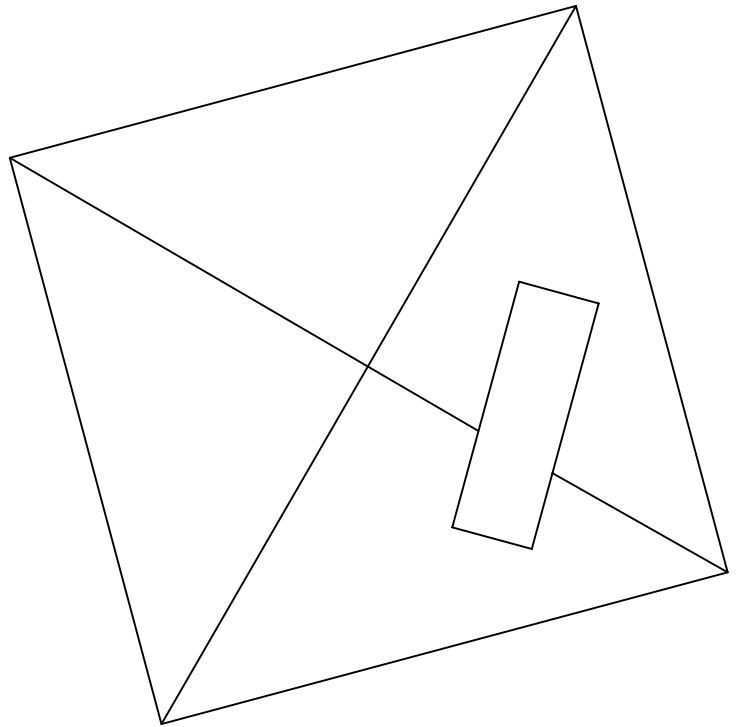
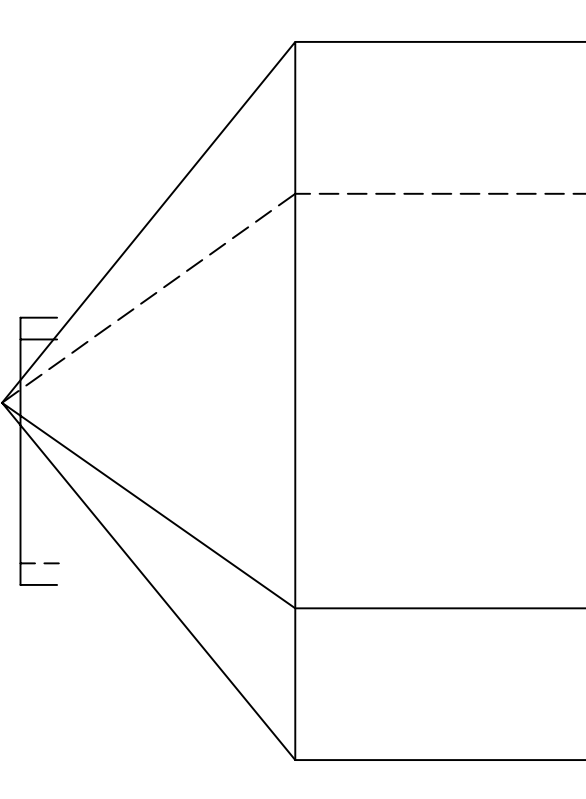


Ein Prisma ist durch seine Basis in π_1 und eine Erzeugende e gegeben.
 Stelle den zwischen π_1 und ε liegenden Teil des Prismas in Grund-, Auf- und Kreuzriss dar und konstruiere dessen Netz!

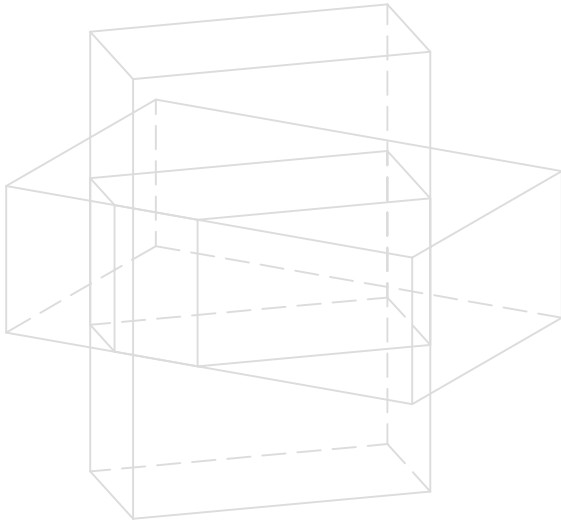




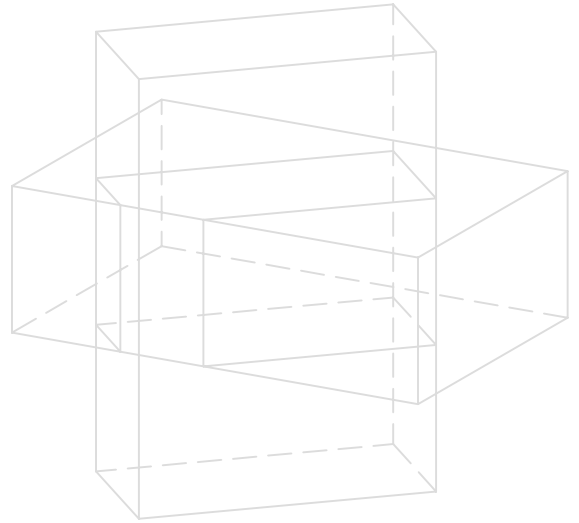




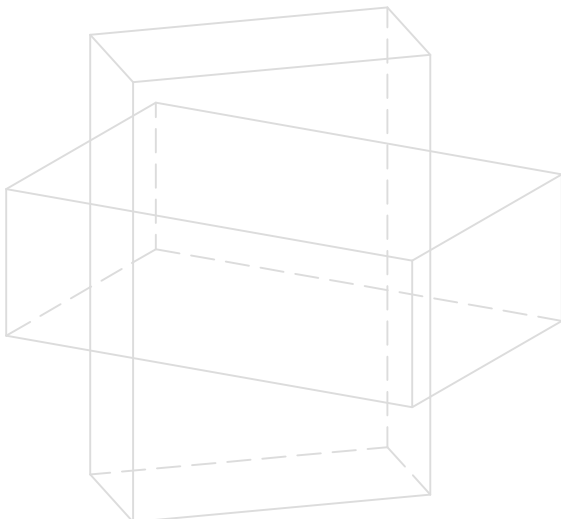
Vereinigung



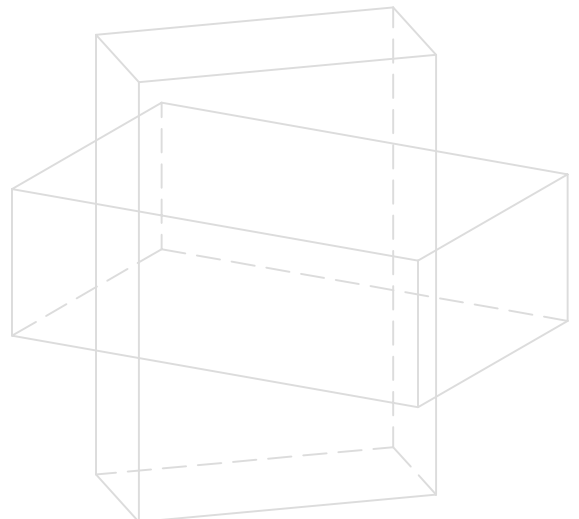
Durchschnitt

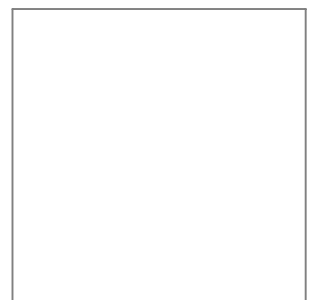
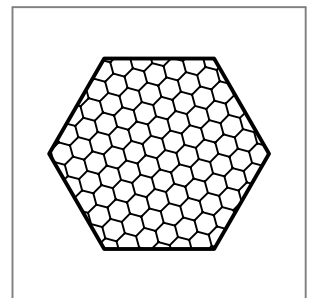
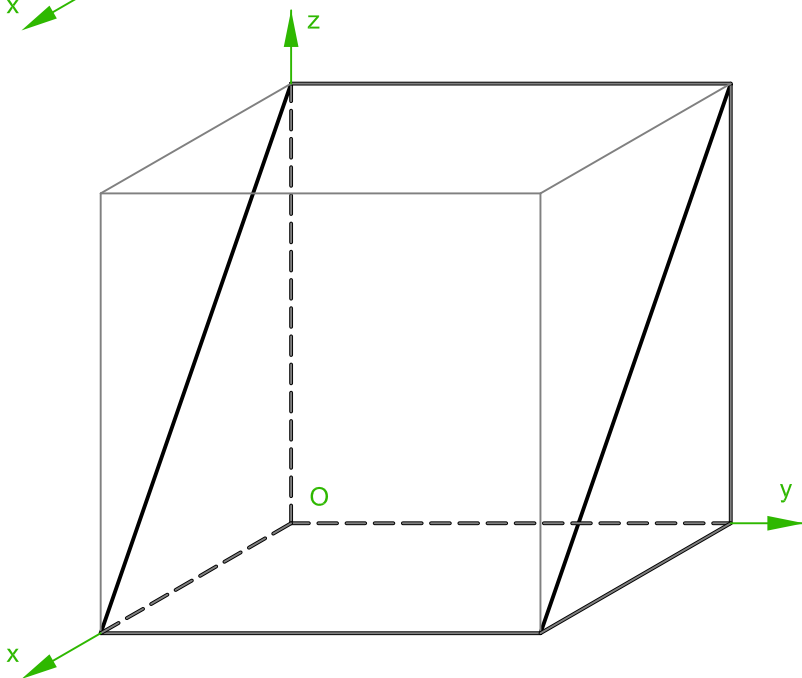
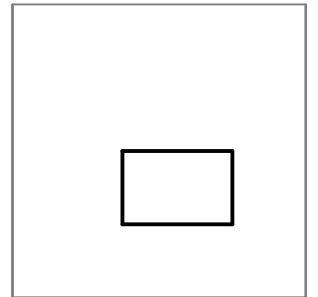
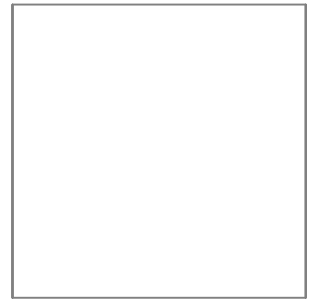
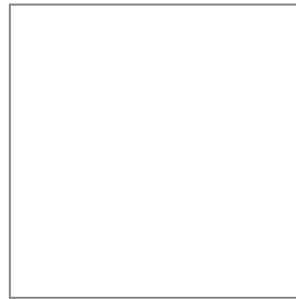
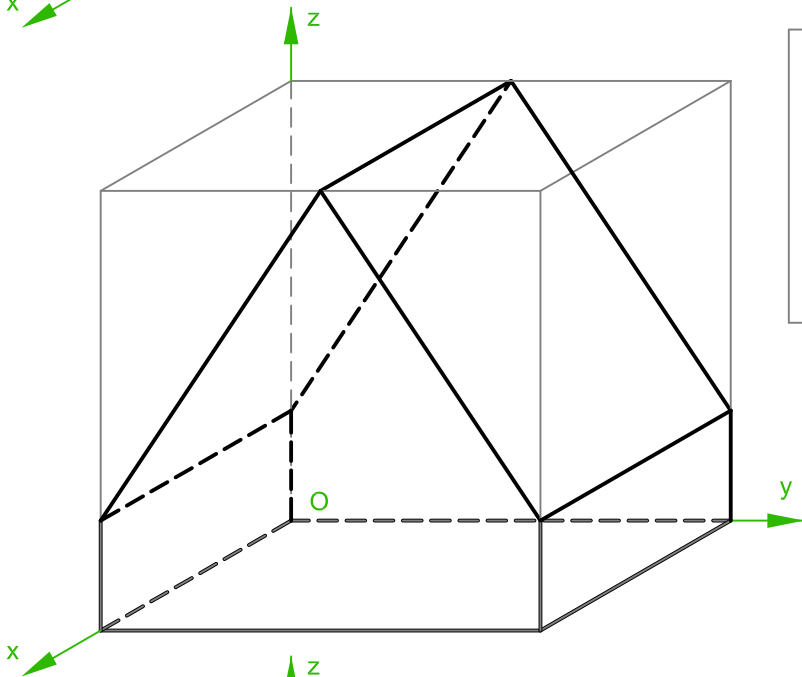
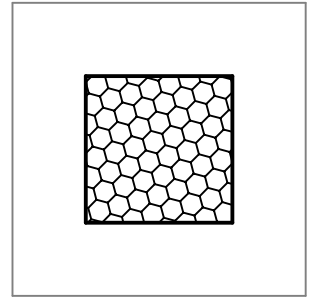
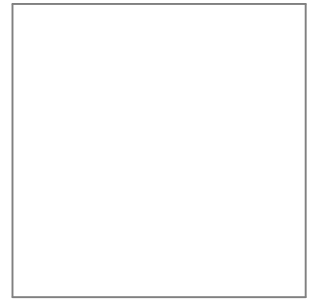
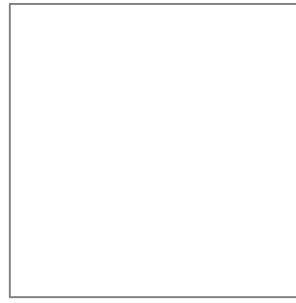
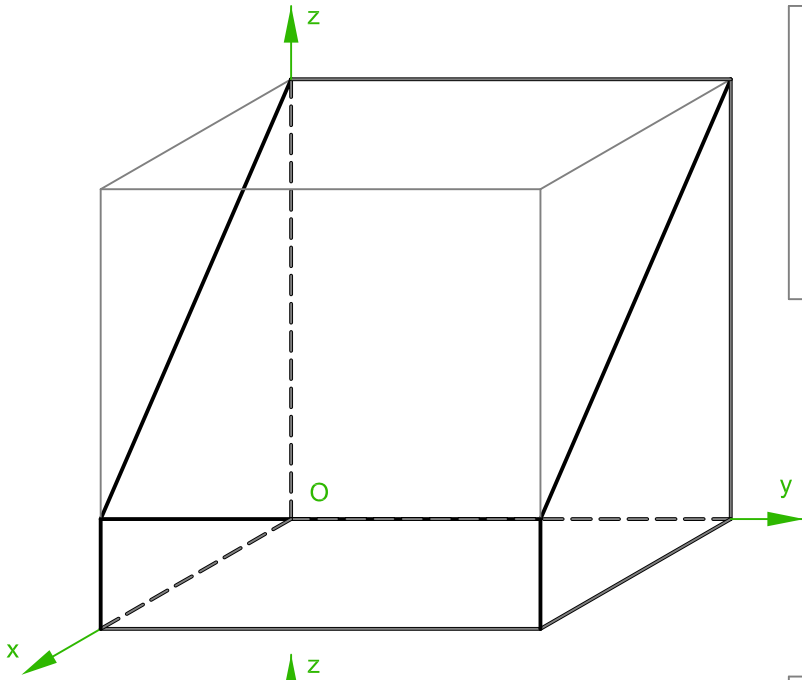


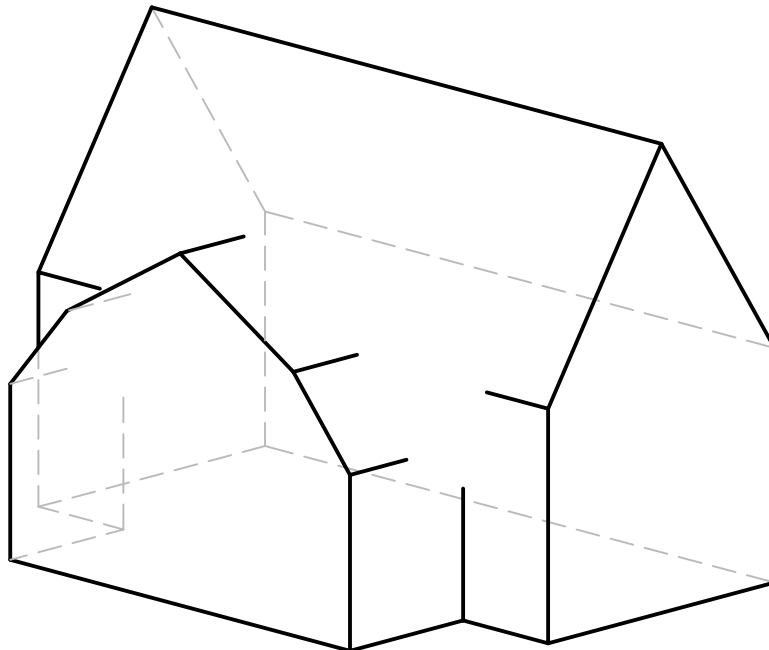
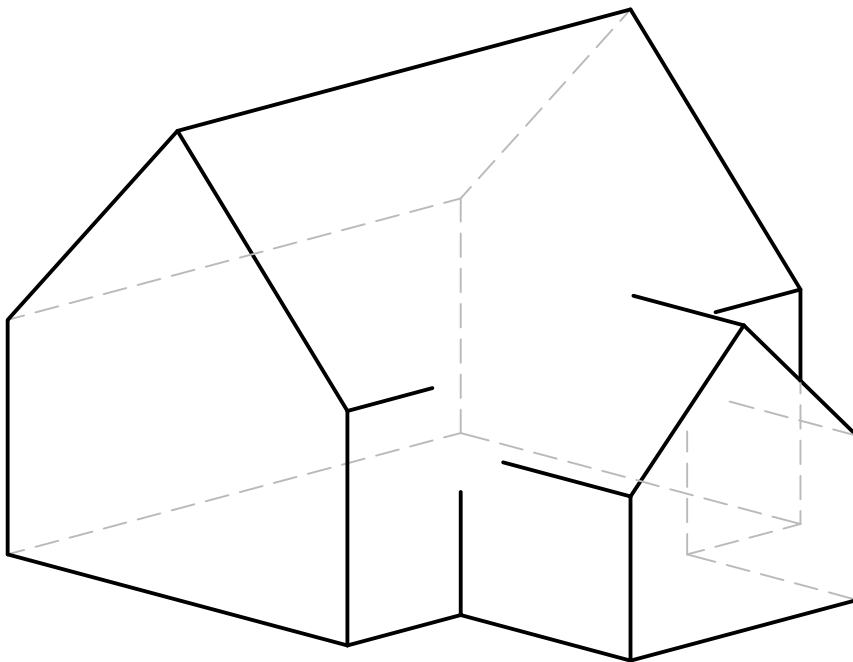
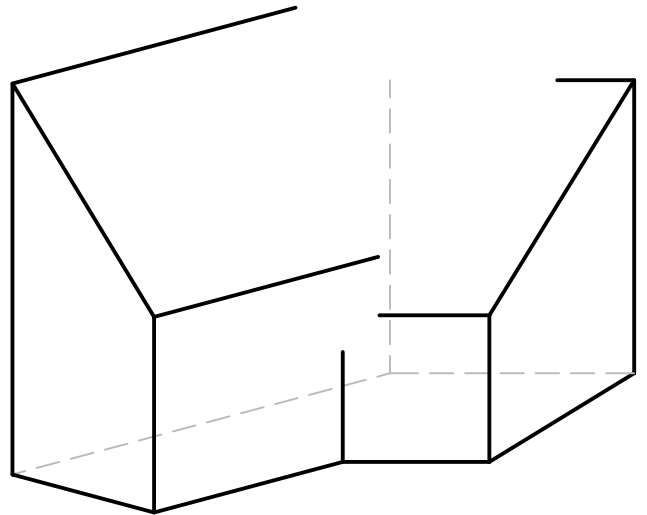
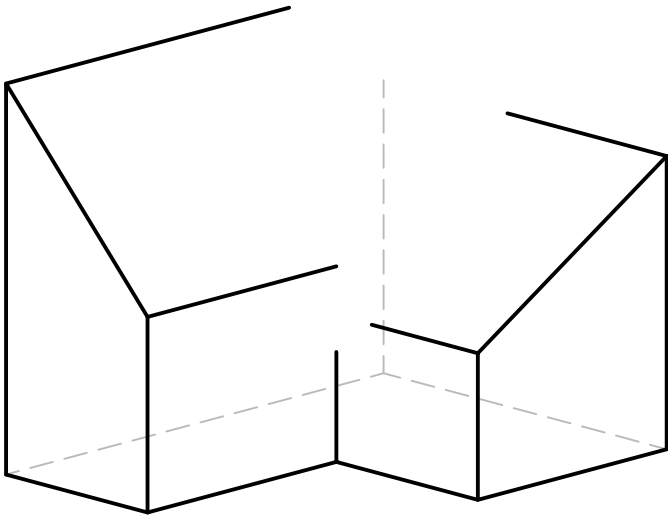
Differenz

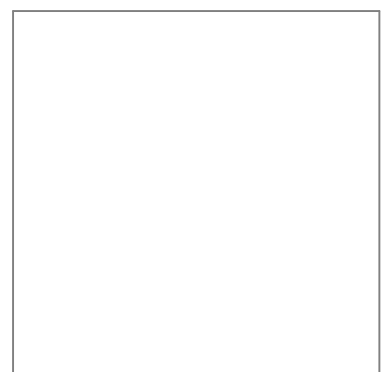
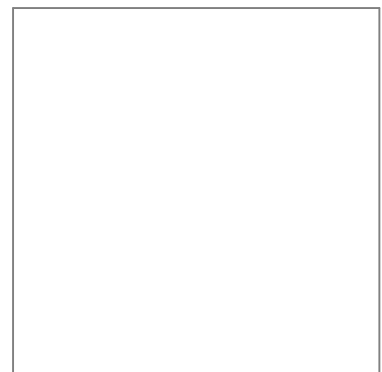
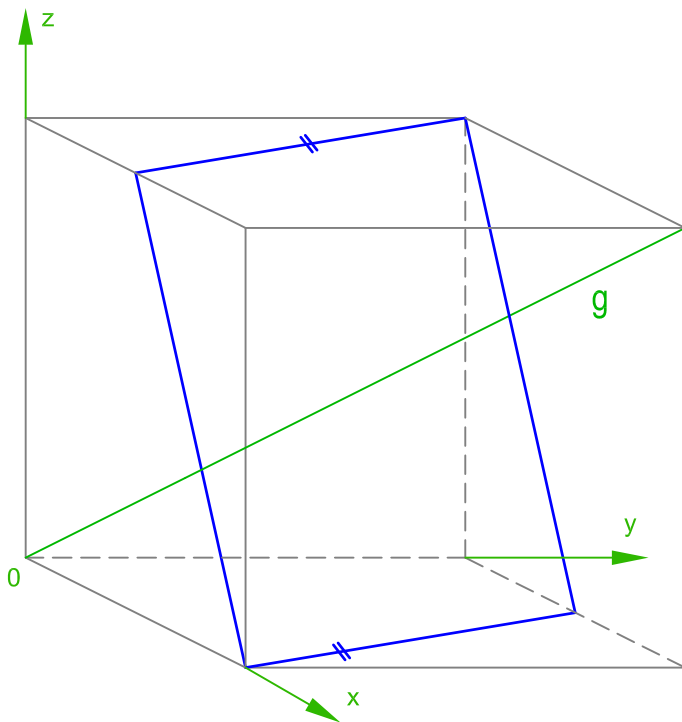
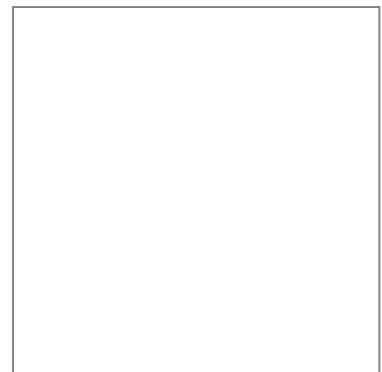
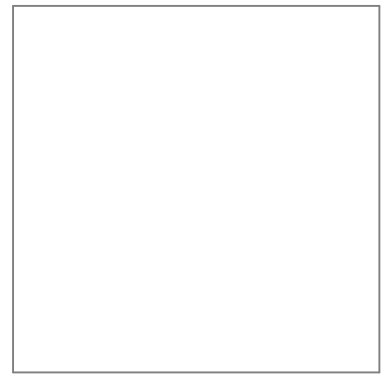
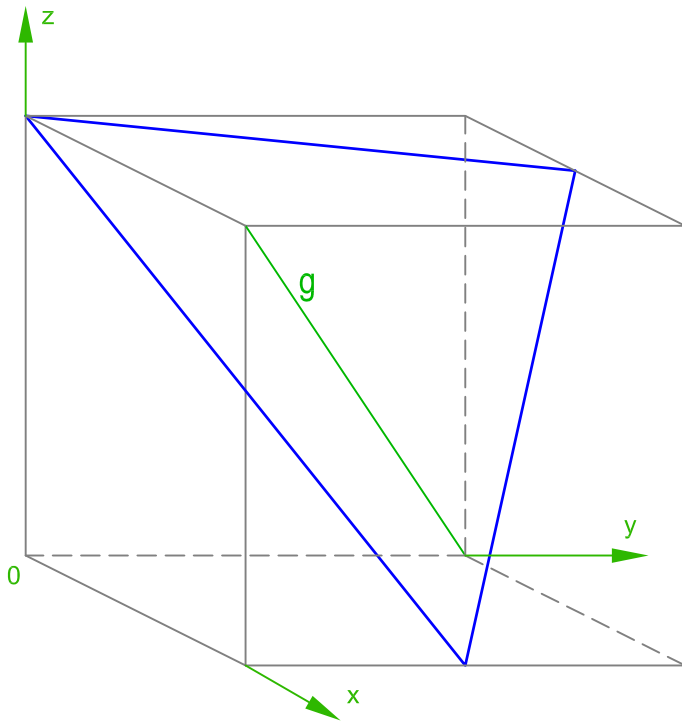


Differenz

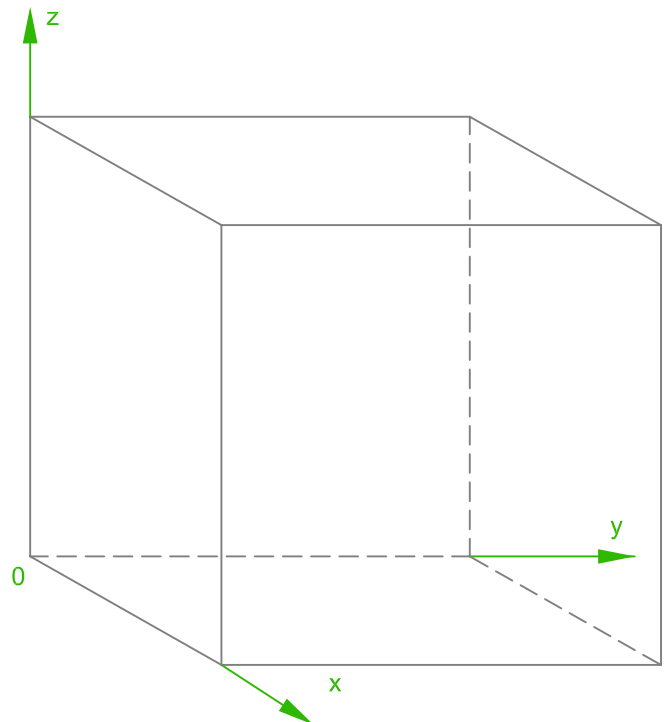
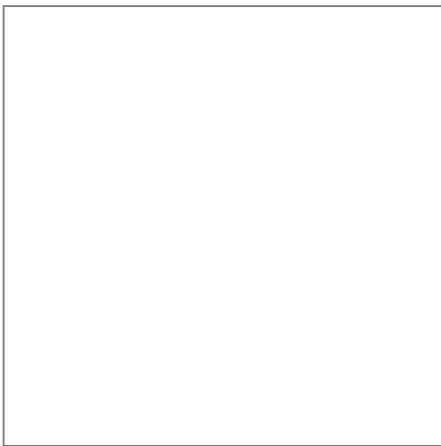
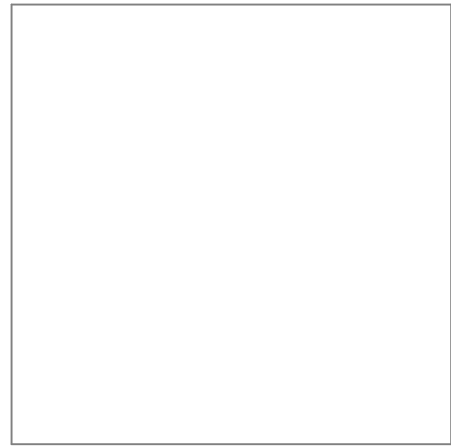
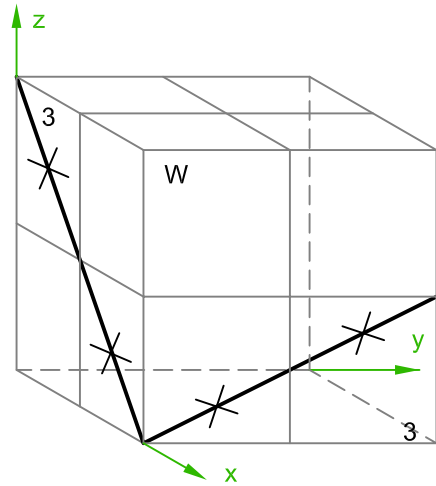
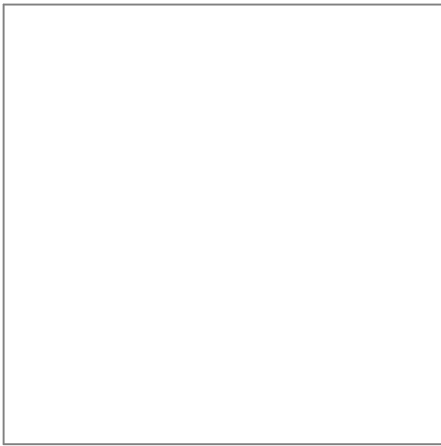
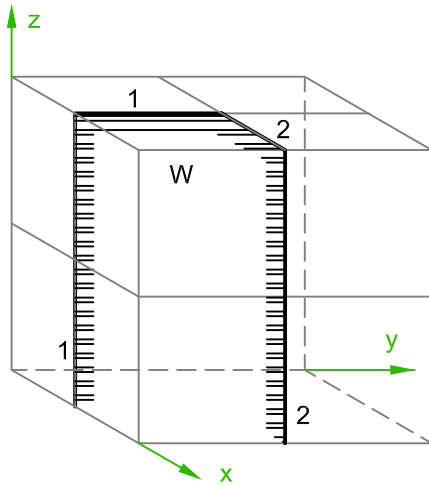




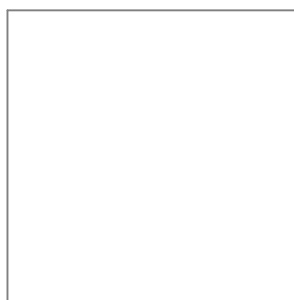
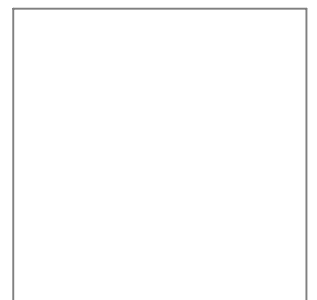
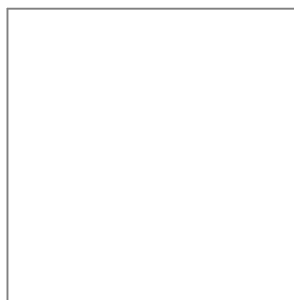
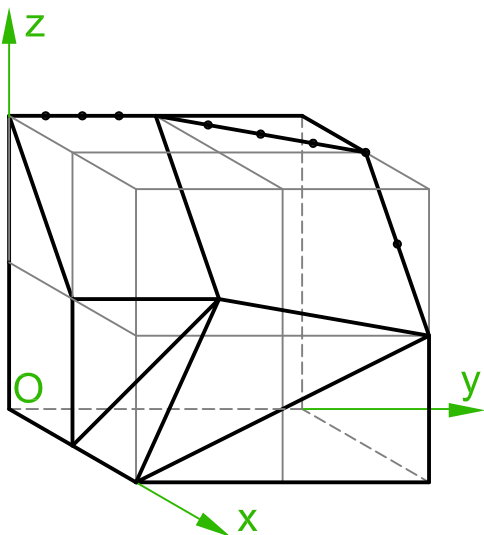
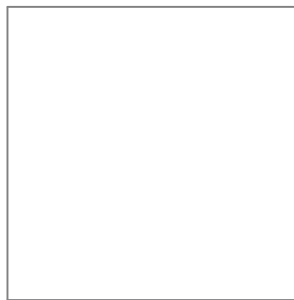
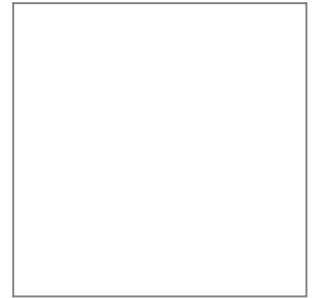
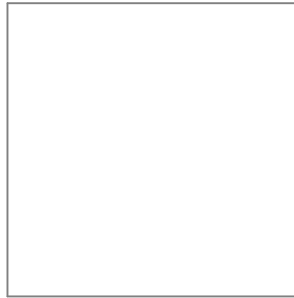
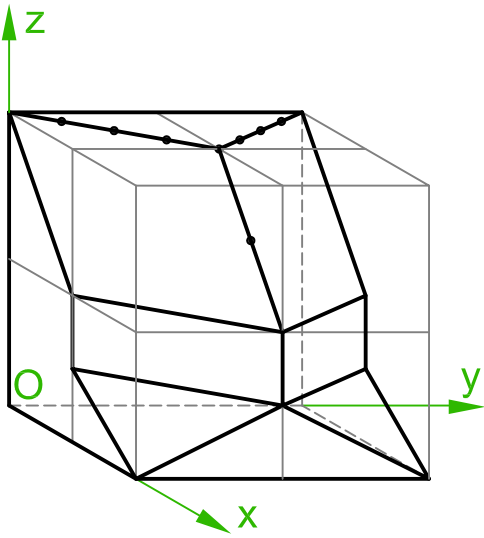


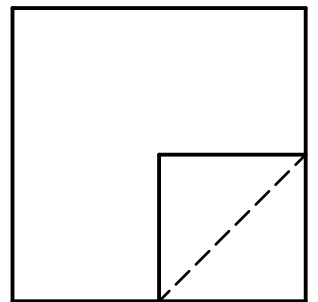
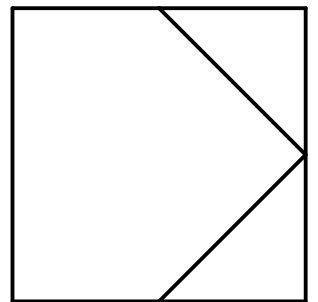
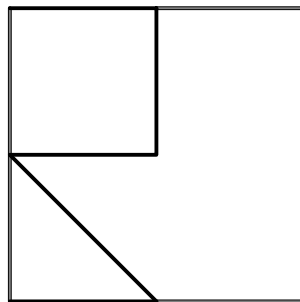
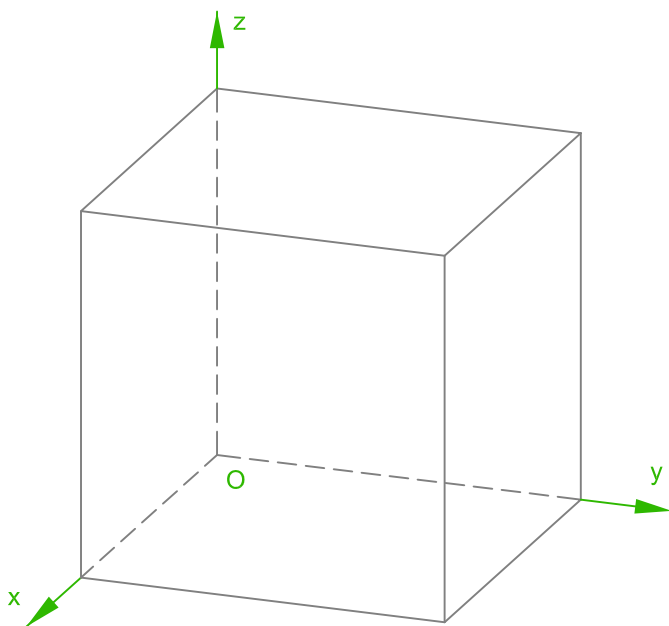
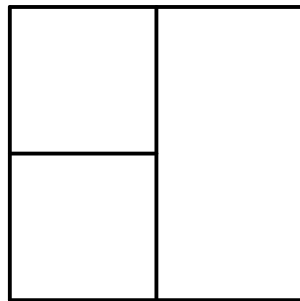
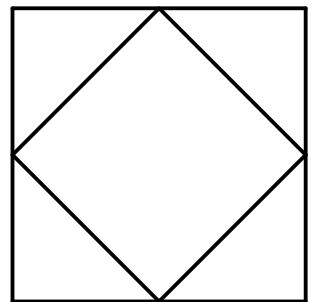
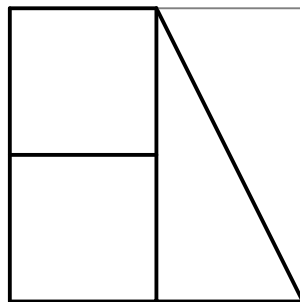
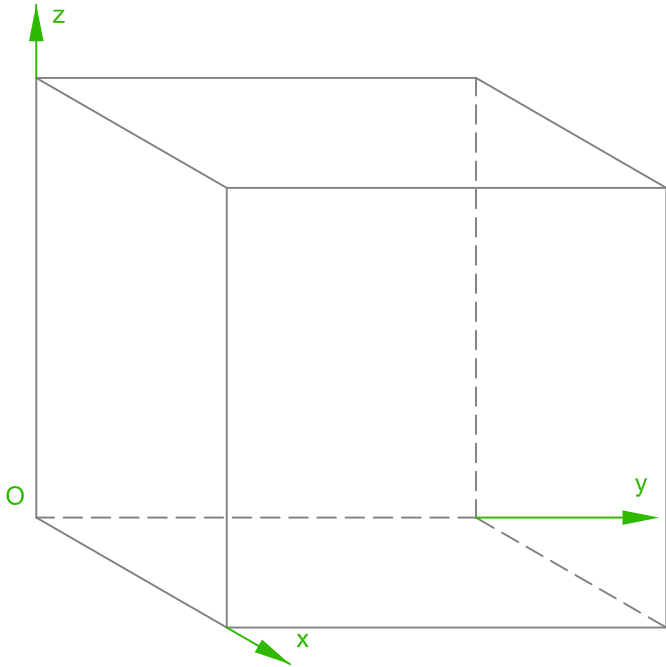
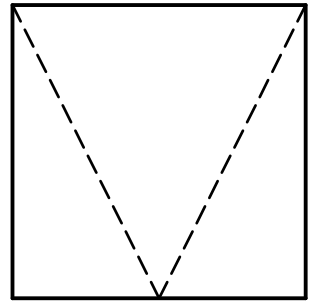
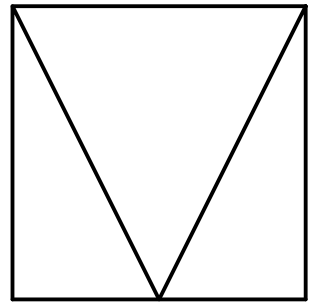
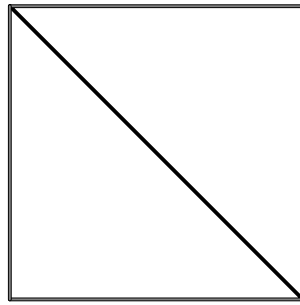
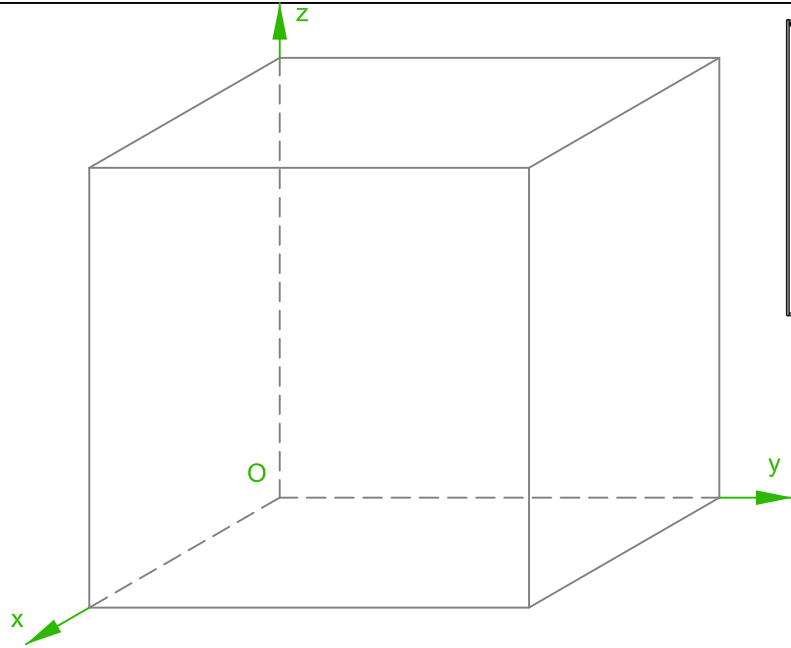


Beim massiv gedachten Würfel sind die Sägeschnitte 1-1 und 2-2 so weit zu führen, bis sie einander treffen, der Schnitt 3-3 geht durch. Die mit W bezeichneten Würfelteile sind wegzunehmen.

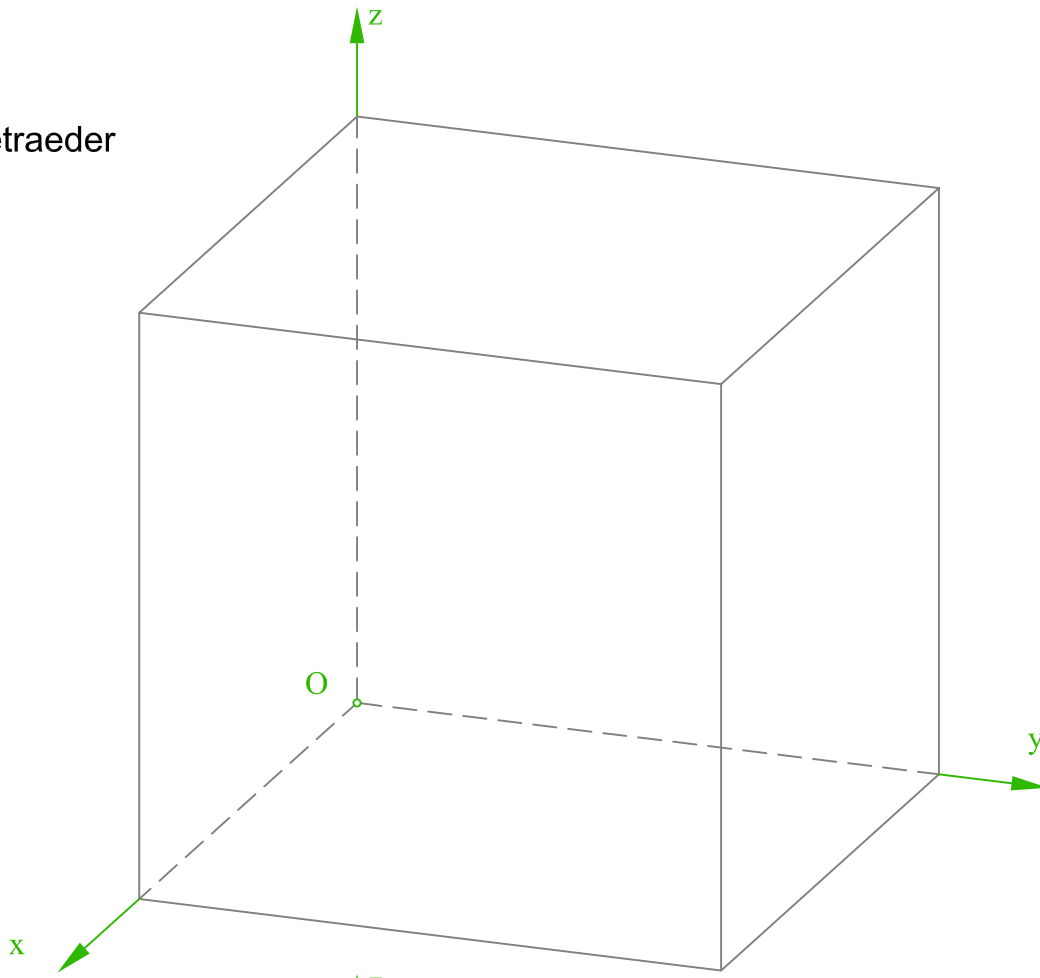


Gegeben sind ebenflächig begrenzte Objekte. Man konstruiere die von den markierten Punkten ausgehenden Fallgeraden. Sie geben den Weg an, den Wasser nehmen würde, das von den markierten Punkten abfließt.

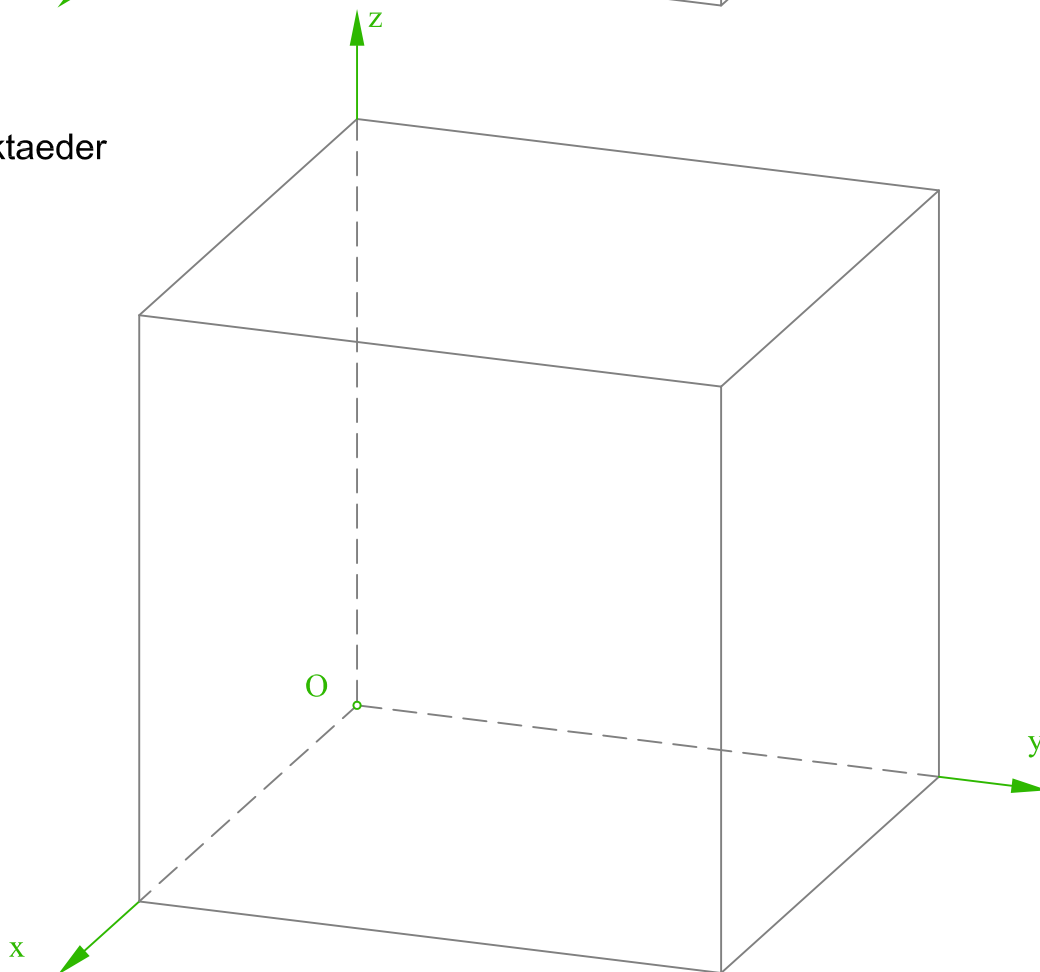




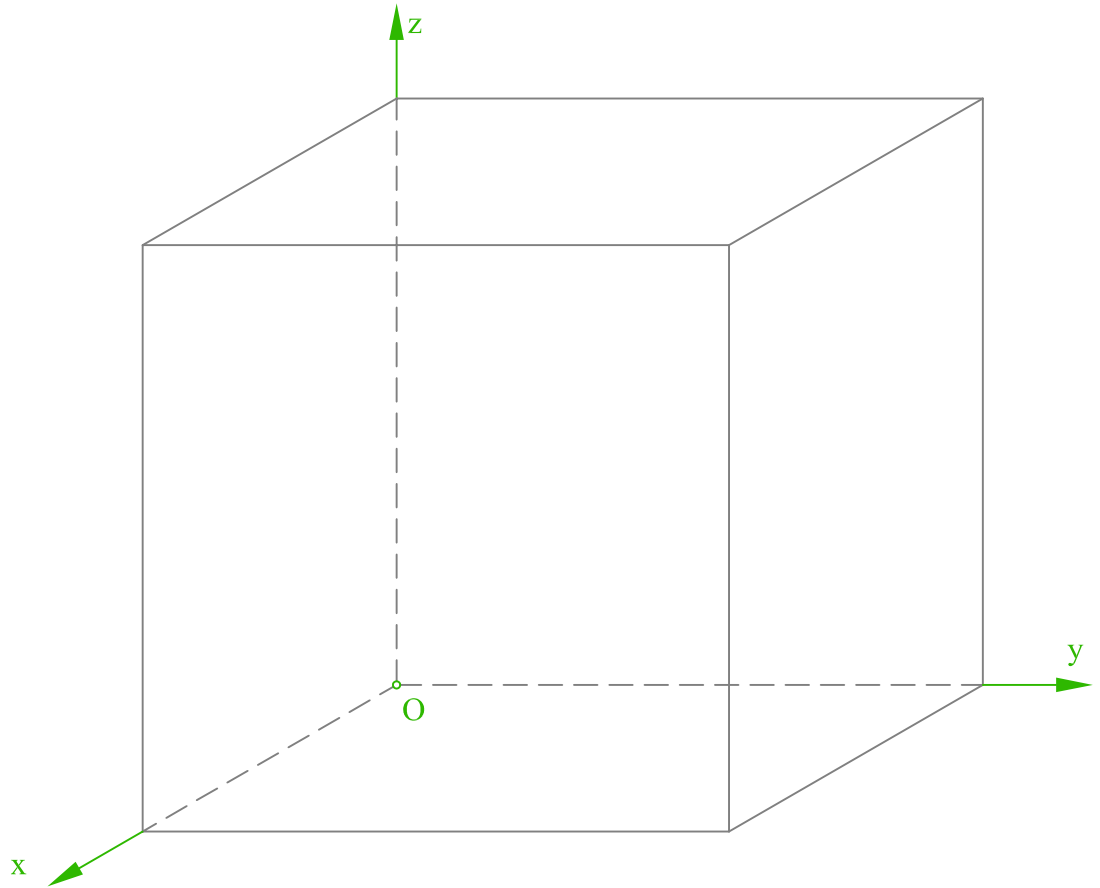
Tetraeder



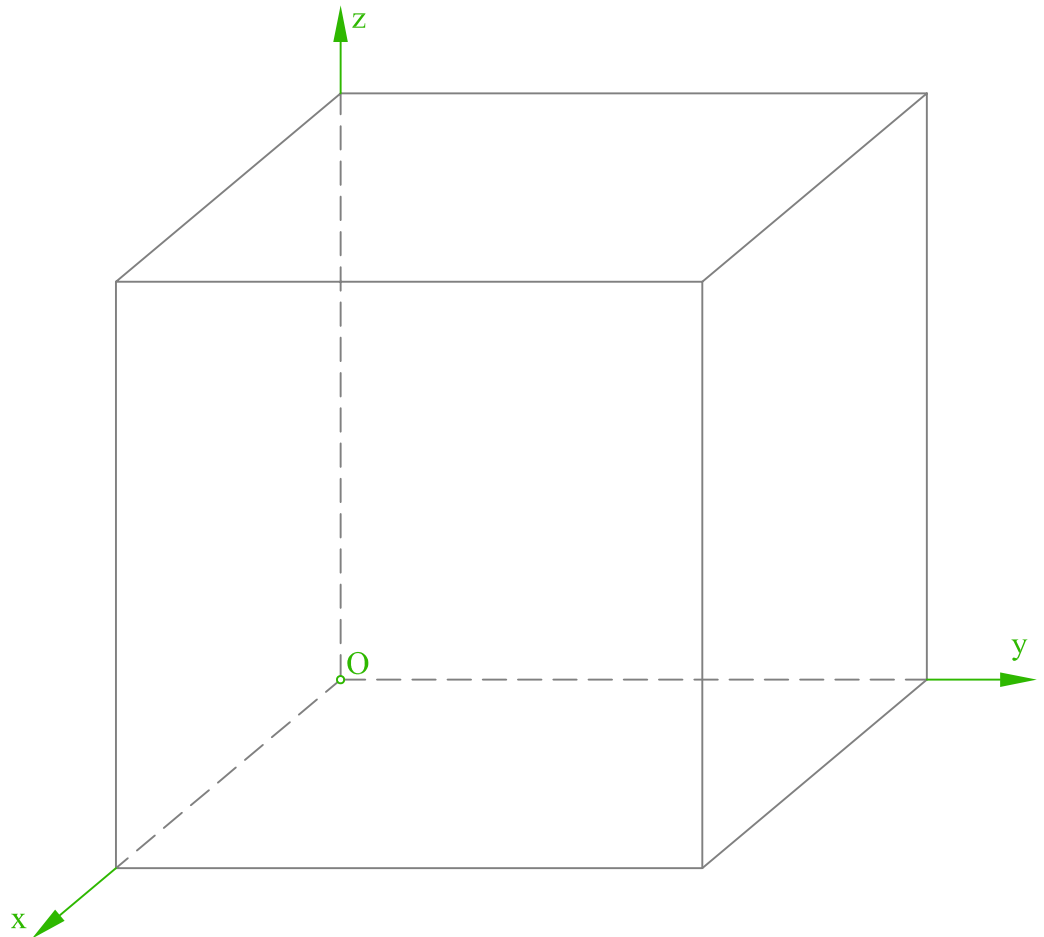
Oktaeder



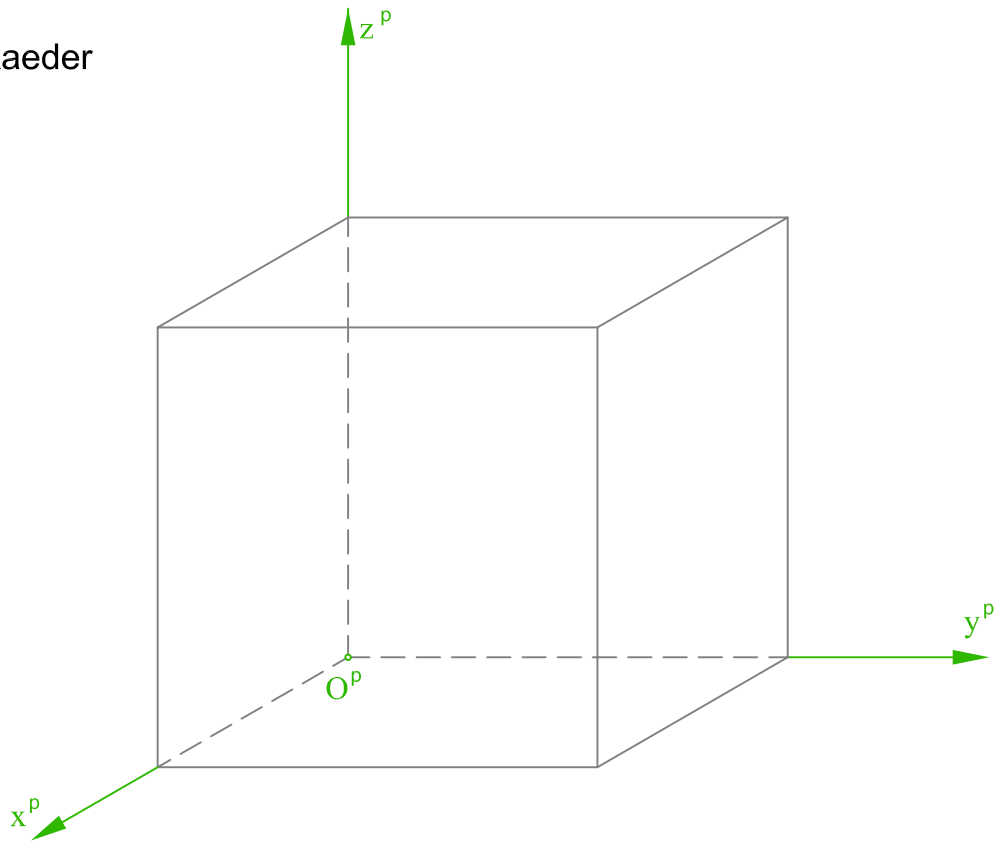
Dodekaeder



Ikosaeder



Rhombendodekaeder

Würfel-Oktaeder-Durchdringung
(Octaedron elevatum)