

Abbildung 1.5: Streckensymmetrale

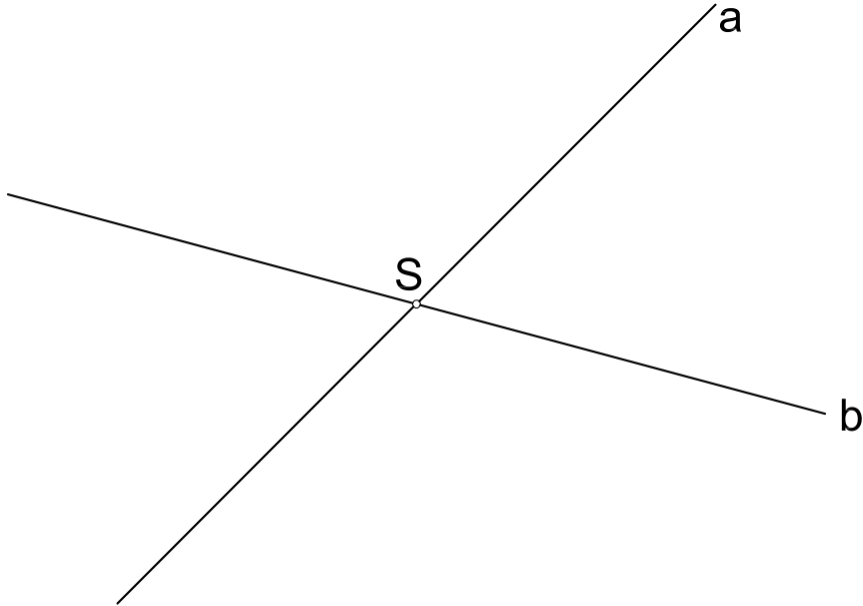


Abbildung 1.6: Winkelsymmetrale

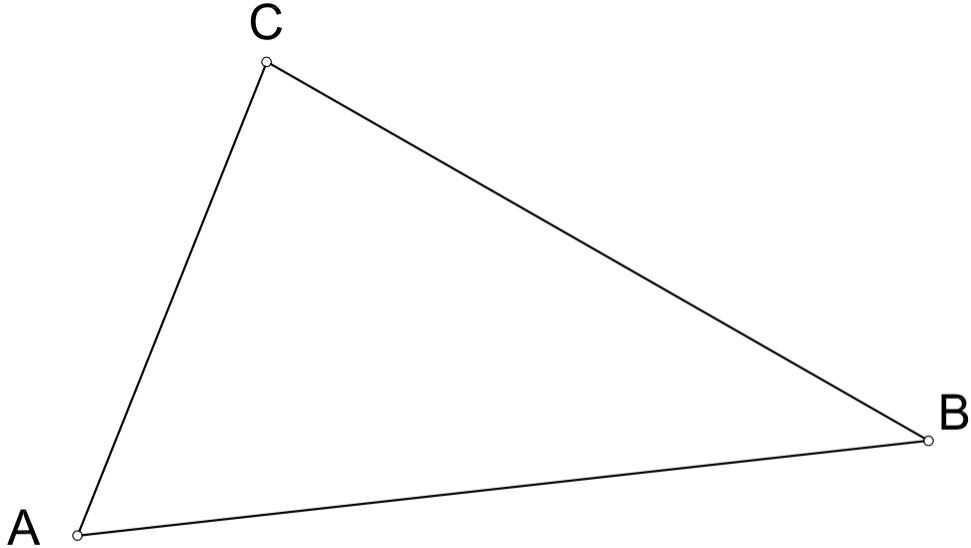


Abbildung 1.7: Höhenschnittpunkt

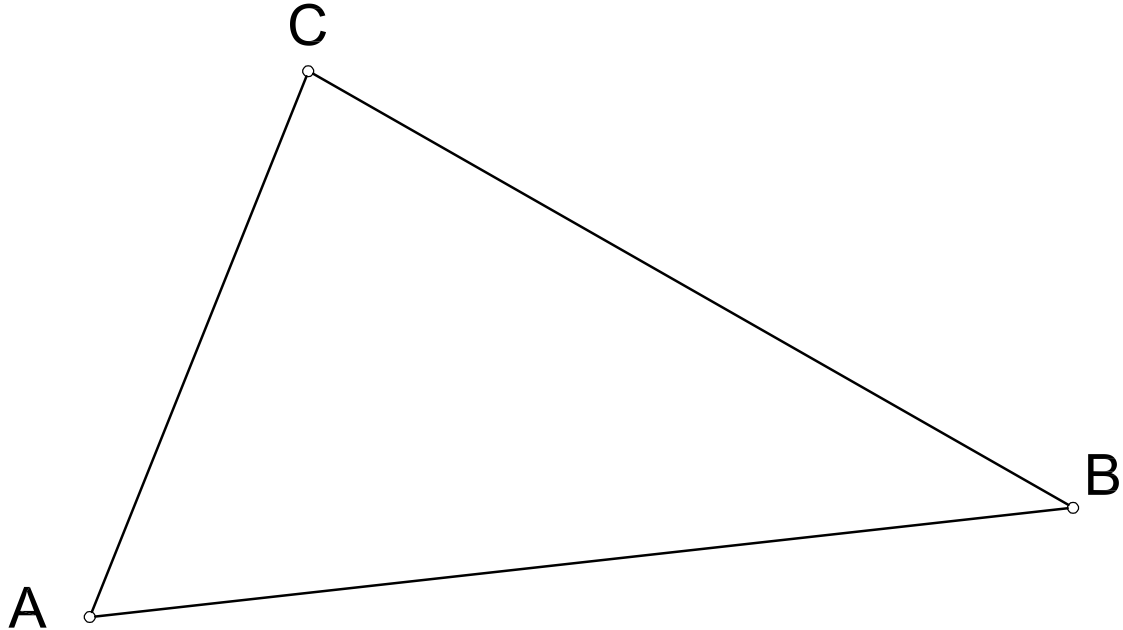


Abbildung 1.8: Umkreismittelpunkt

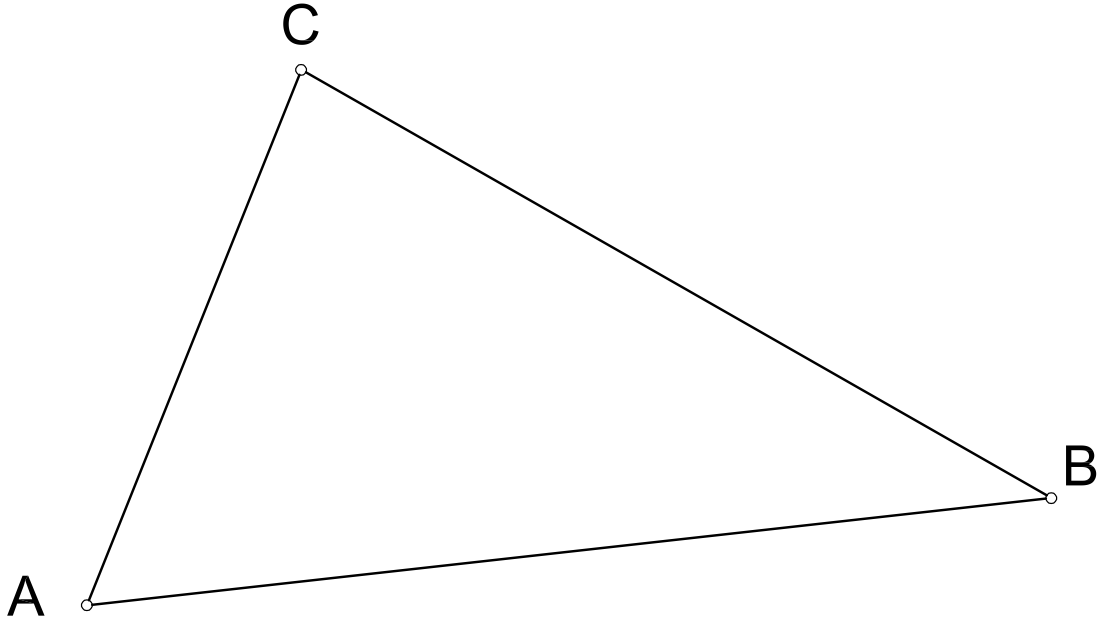


Abbildung 1.9: Inkreismittelpunkt

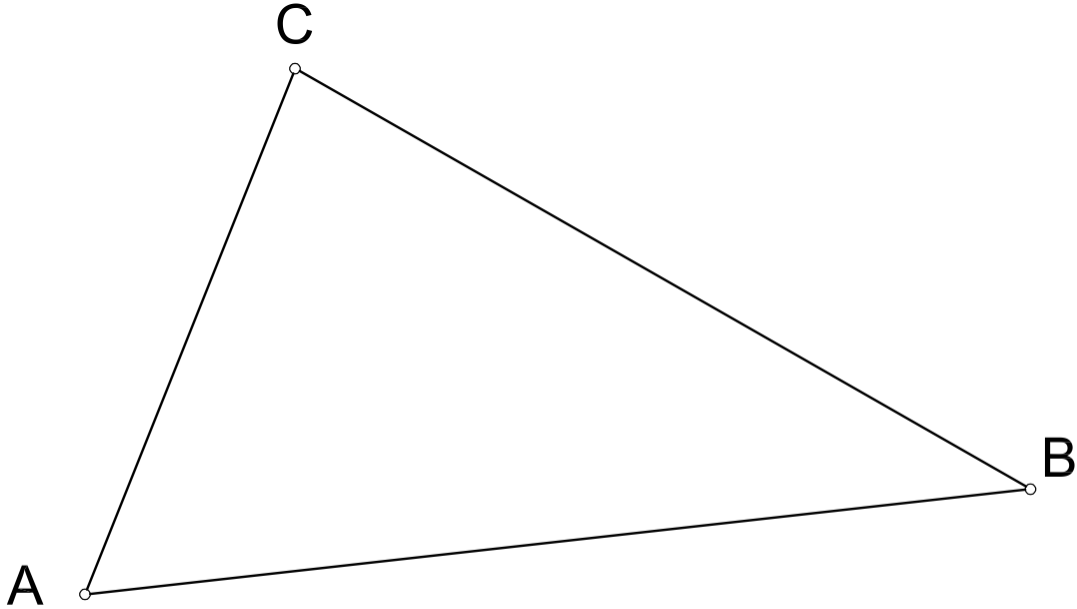


Abbildung 1.10: Schwerpunkt

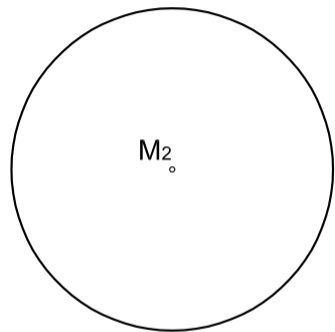
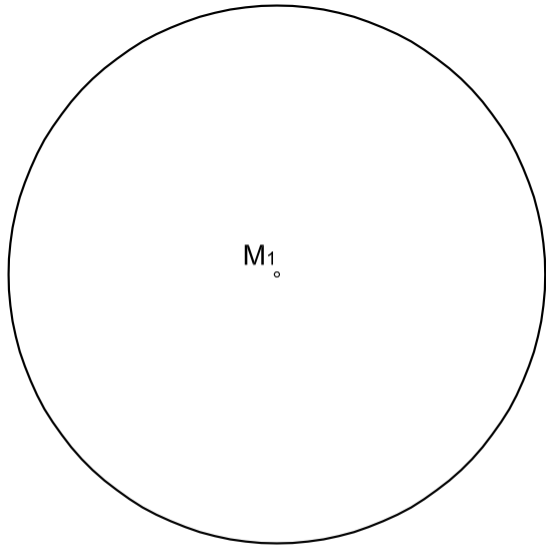


Abbildung 1.12: Kreistangenten

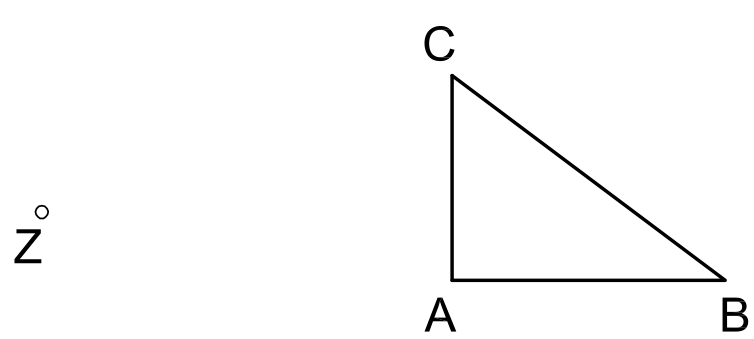
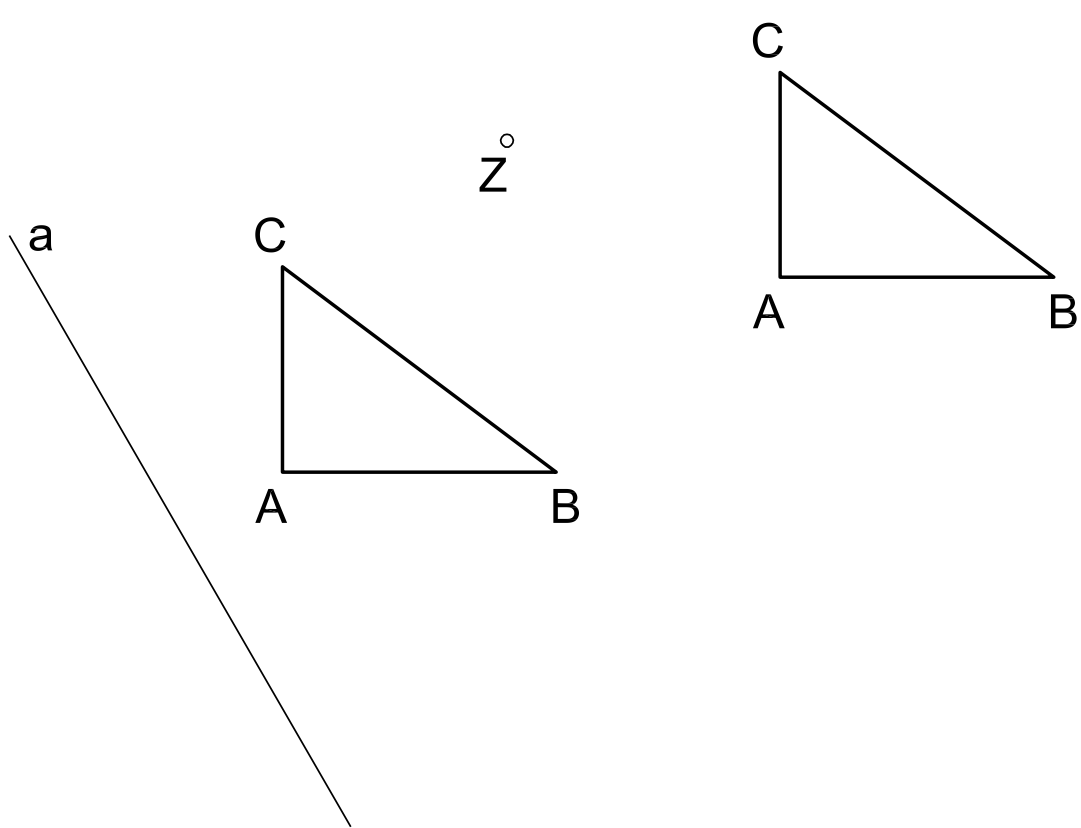
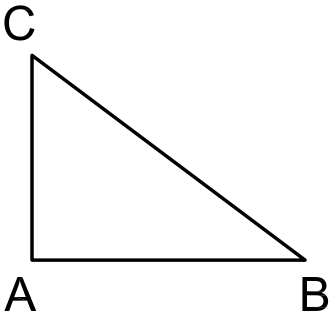
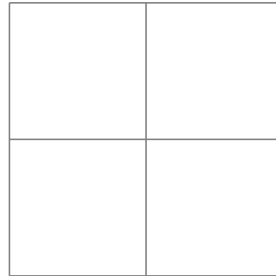
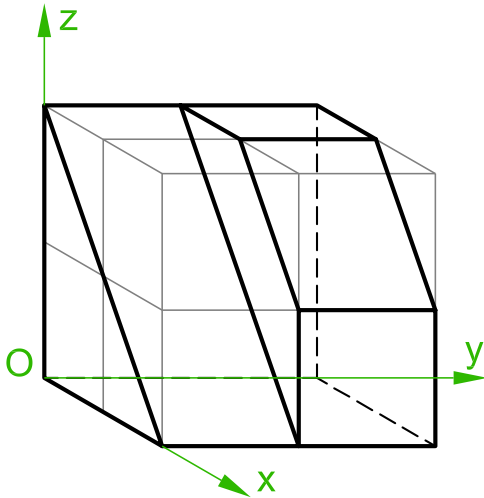


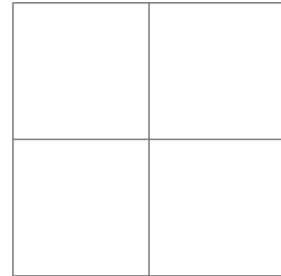
Abbildung 1.22: Elementare Transformationen



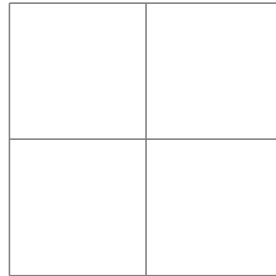
# Europäische Rissanordnung



Aufriss



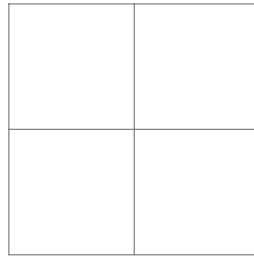
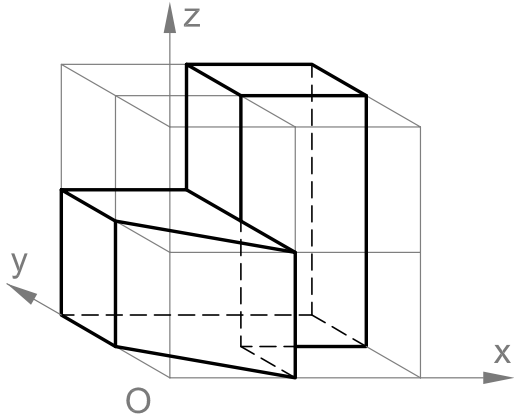
Kreuzriss  
(A. v. links)



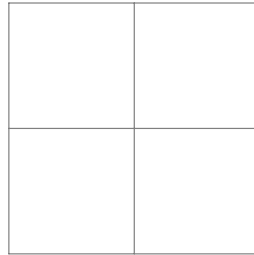
Grundriss

Abbildung 2.27: Rissleseübung Aufgabe ??

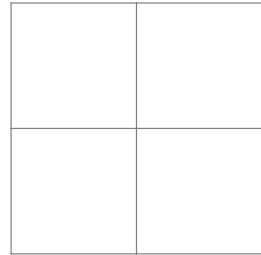
# Amerikanische Rissanordnung



Top



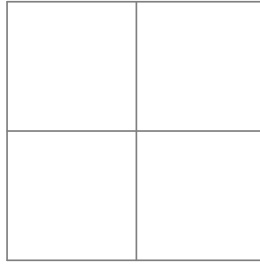
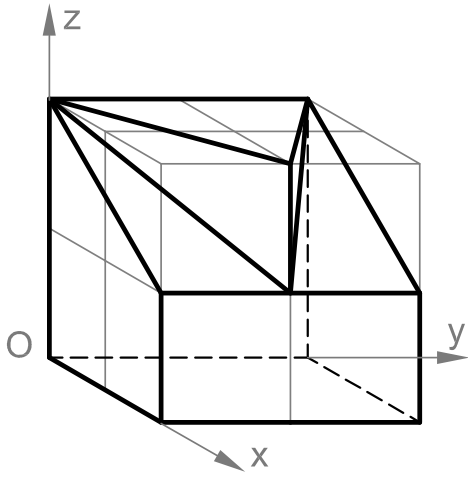
Front



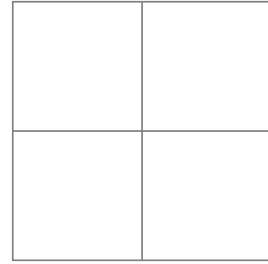
Right

Abbildung 2.28: Rissleseübung Aufgabe ??

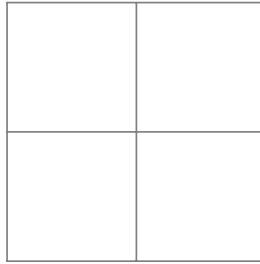
# Europäische Rissanordnung



Aufriss

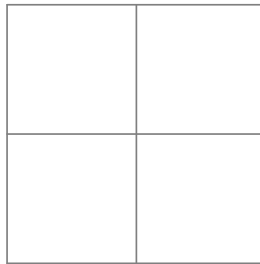
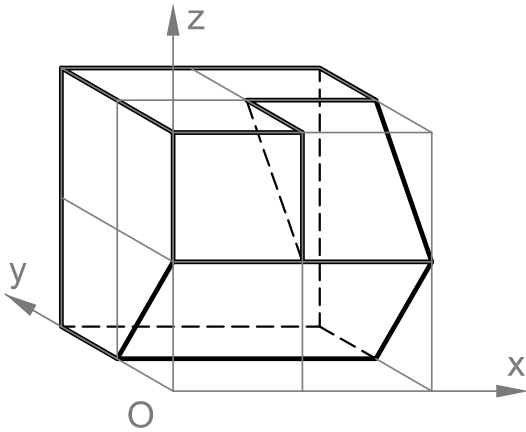


Kreuzriss  
(A. v. links)

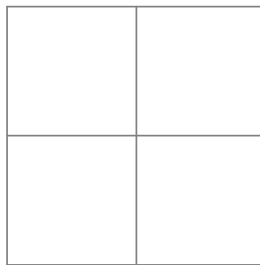


Grundriss

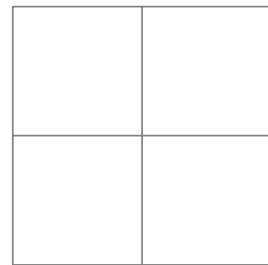
# Amerikanische Rissanordnung



Top



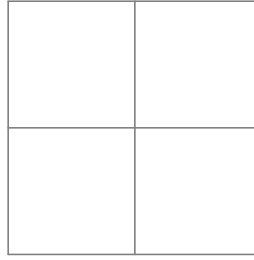
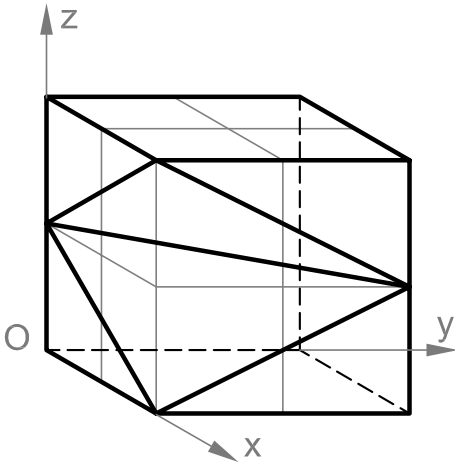
Front



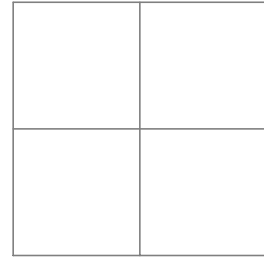
Right

Abbildung 2.29: Rissleseübung Aufgabe ??

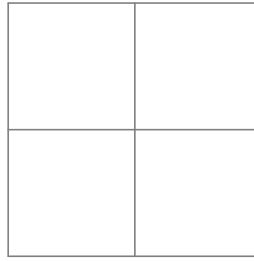
# Europäische Rissanordnung



Aufriß

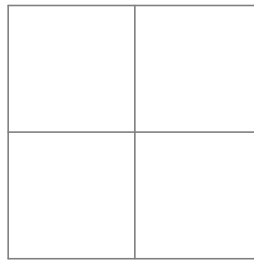
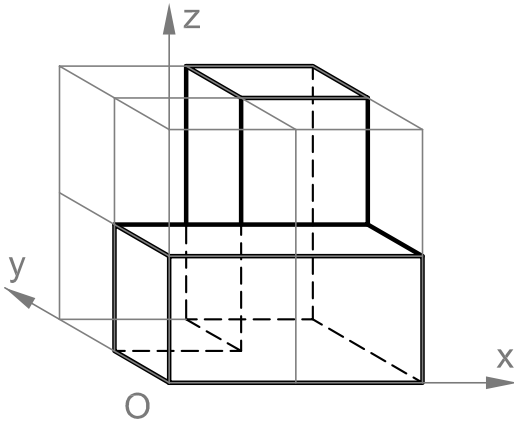


Kreuzriß  
(A. v. links)

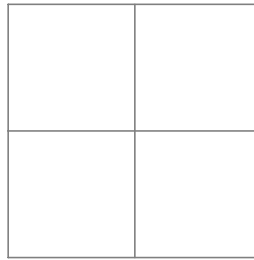


Grundriß

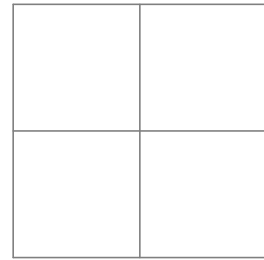
# Amerikanische Rissanordnung



Top



Front



Right

Abbildung 2.30: Rissleseübung Aufgabe ??

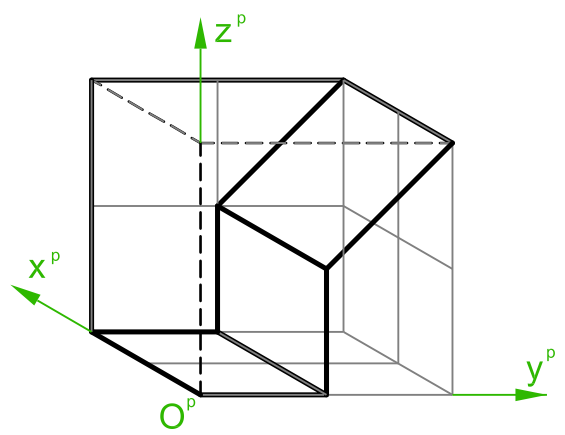
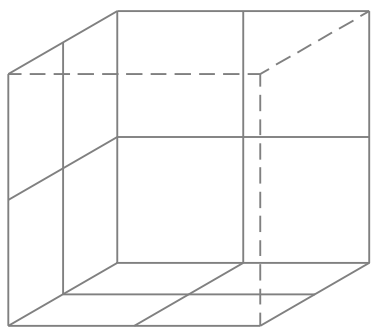
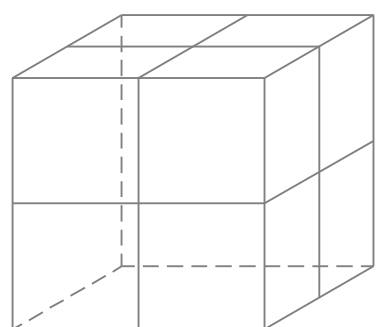
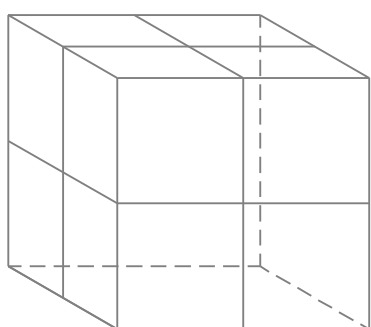
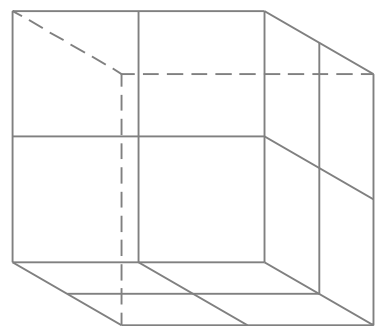
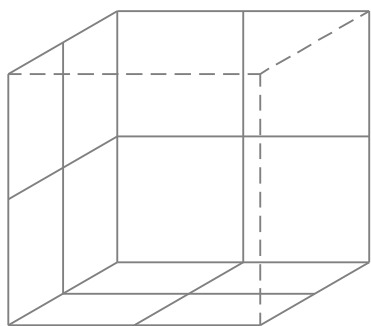
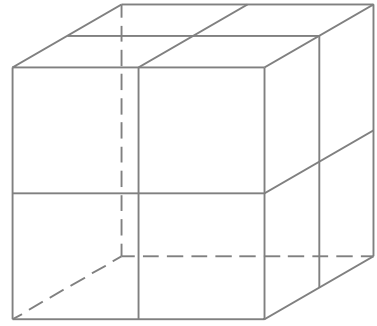
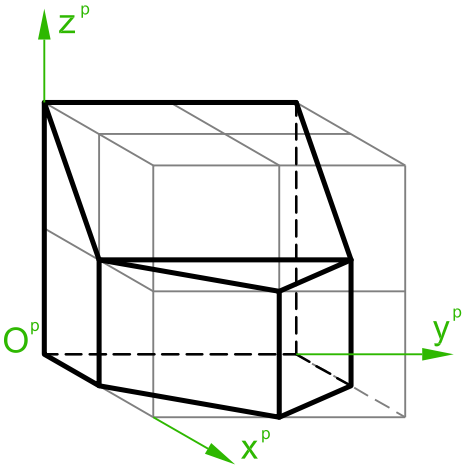


Abbildung 2.31: Rissleseübung Aufgabe ??

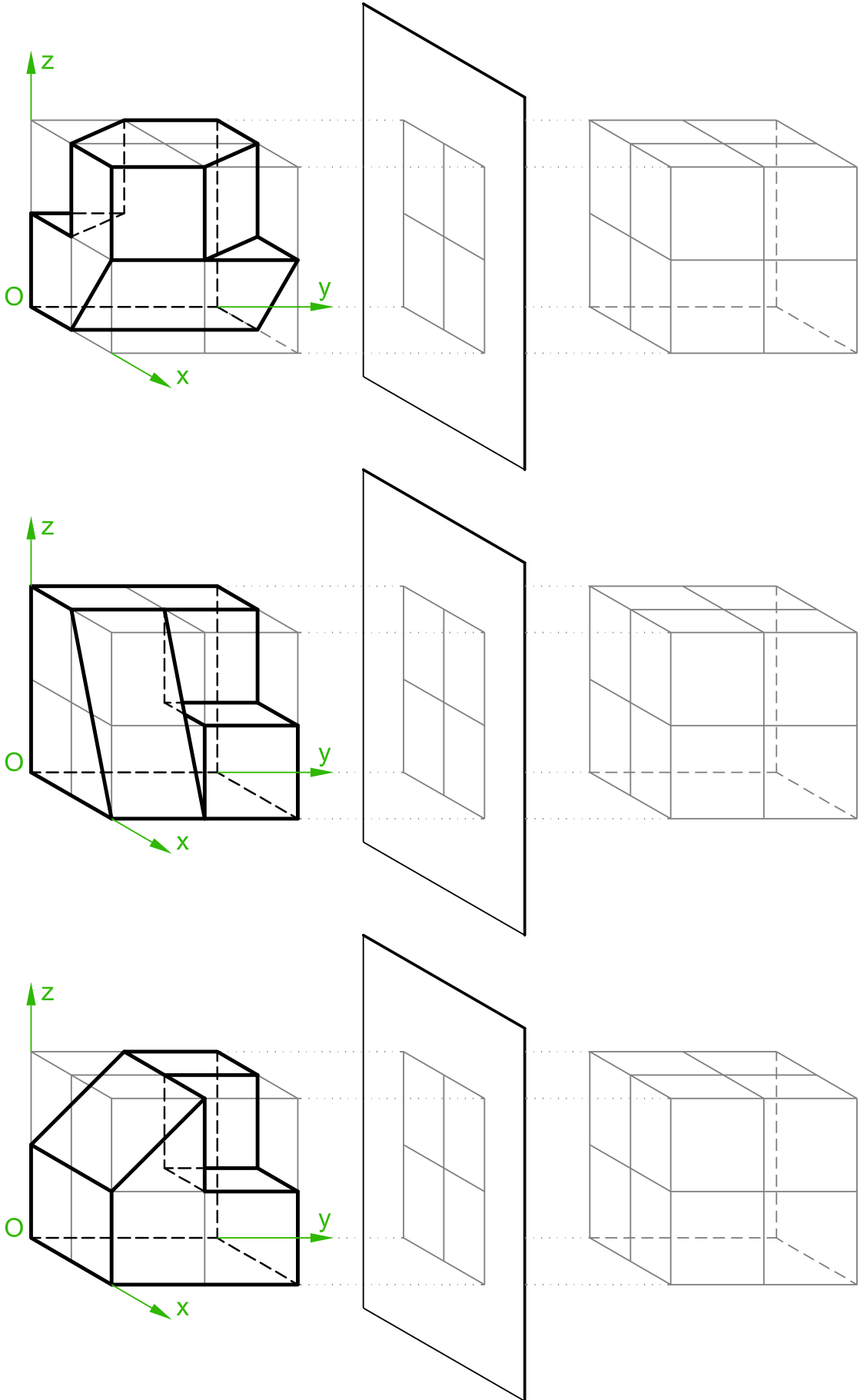


Abbildung 2.32: Rissleseübung Aufgabe ??

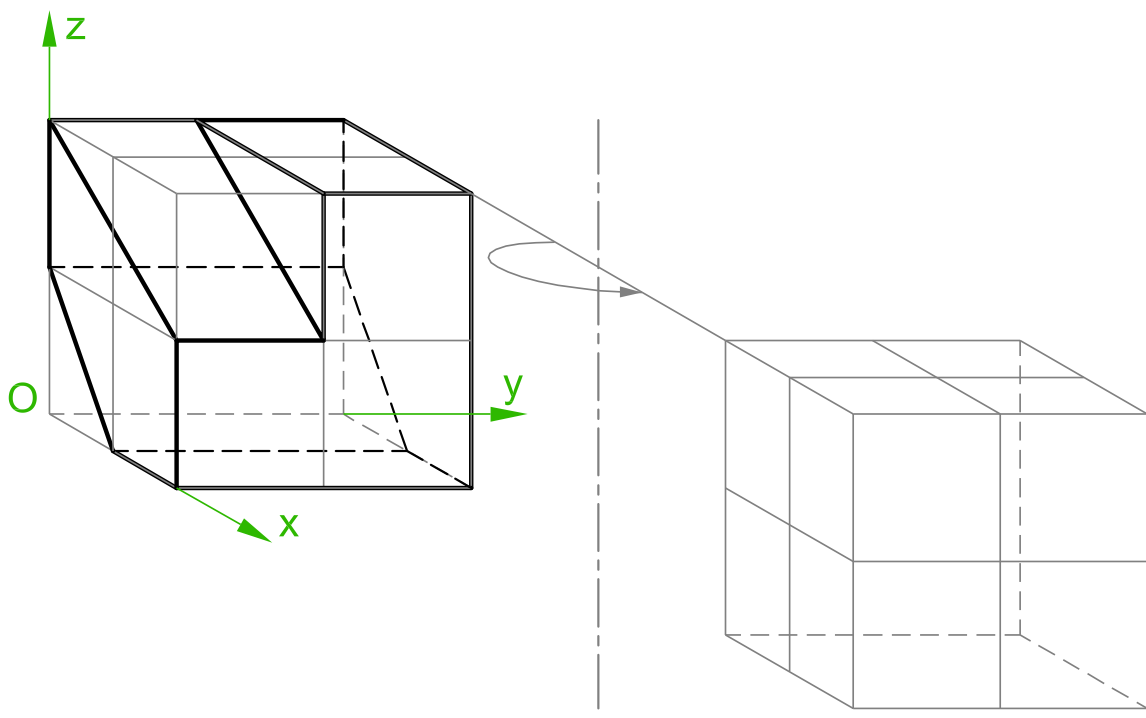
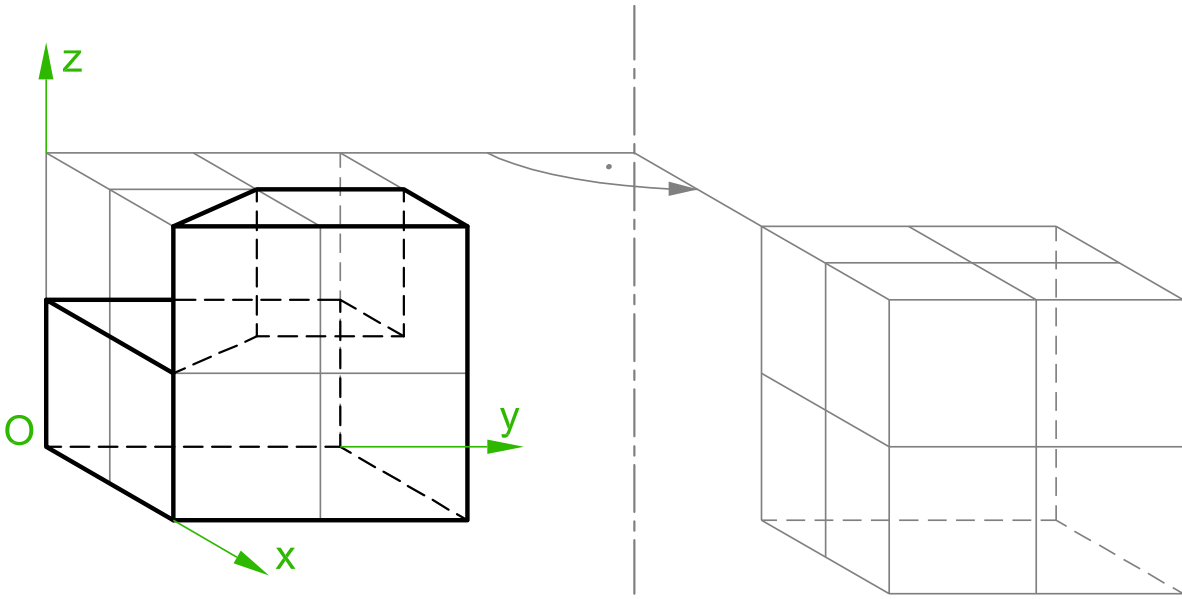


Abbildung 2.33: Rissleseübung Aufgabe ??

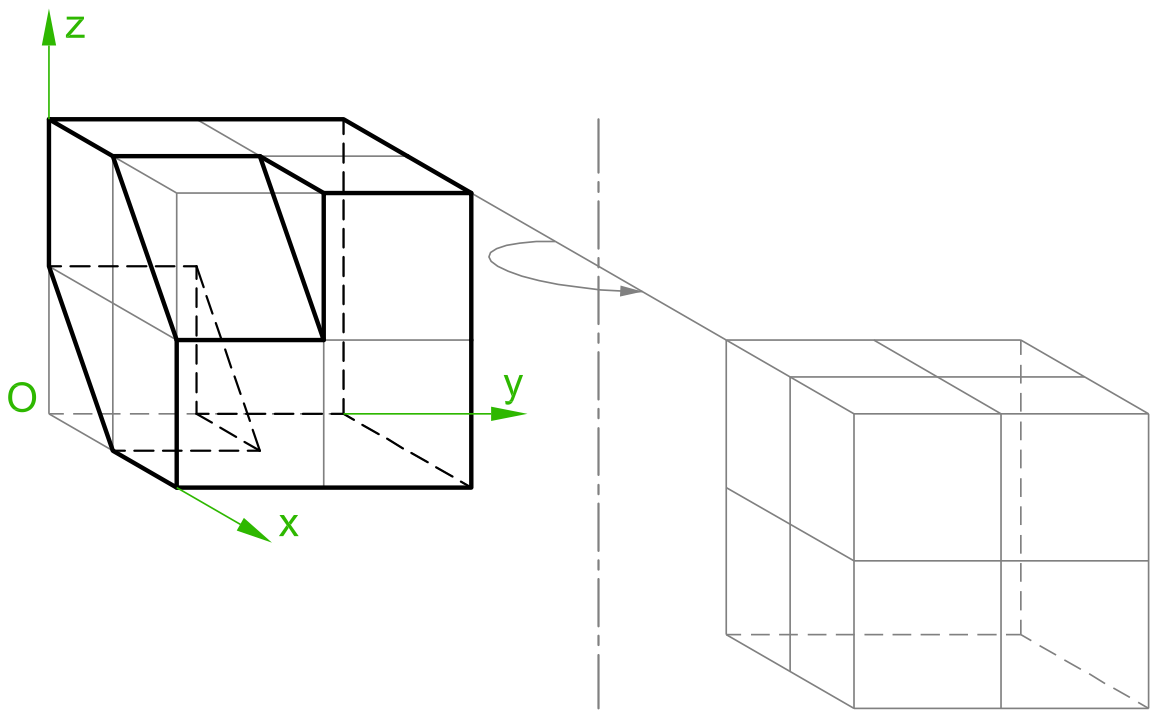
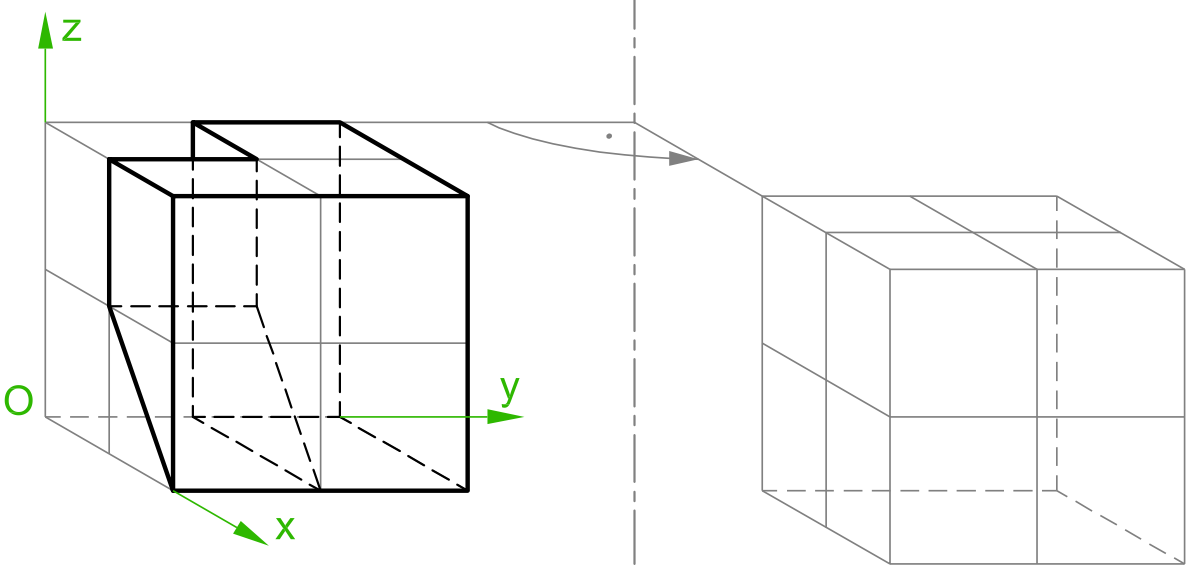


Abbildung 2.34: Rissleseübung Aufgabe ??



# Europäische Rissanordnung

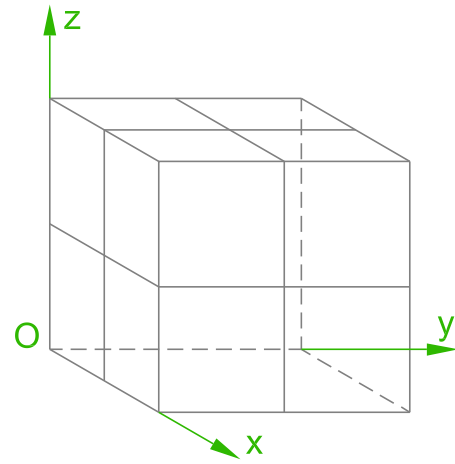
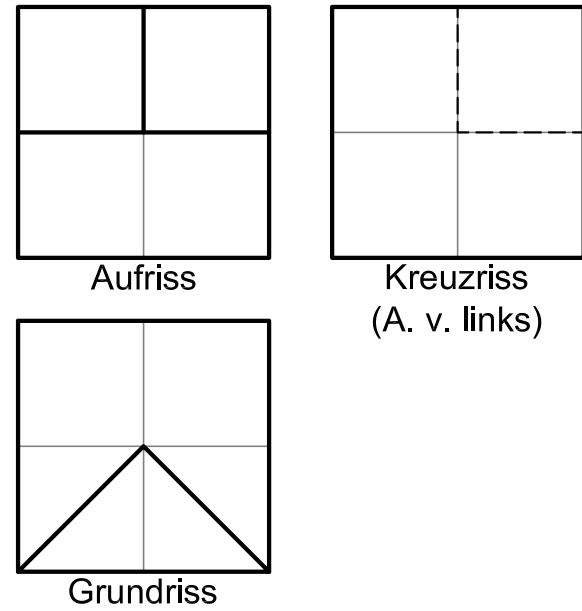


Abbildung 2.35: Rissleseübung Aufgabe ??

# Amerikanische Rissanordnung

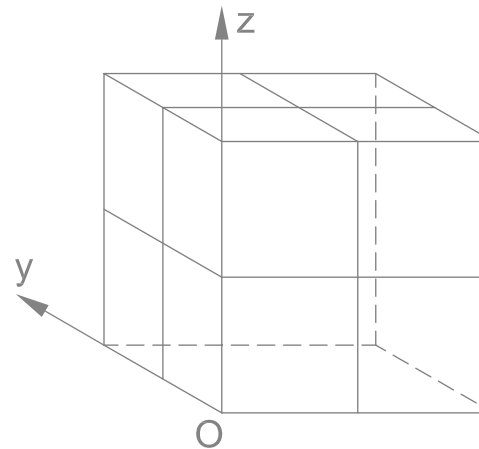
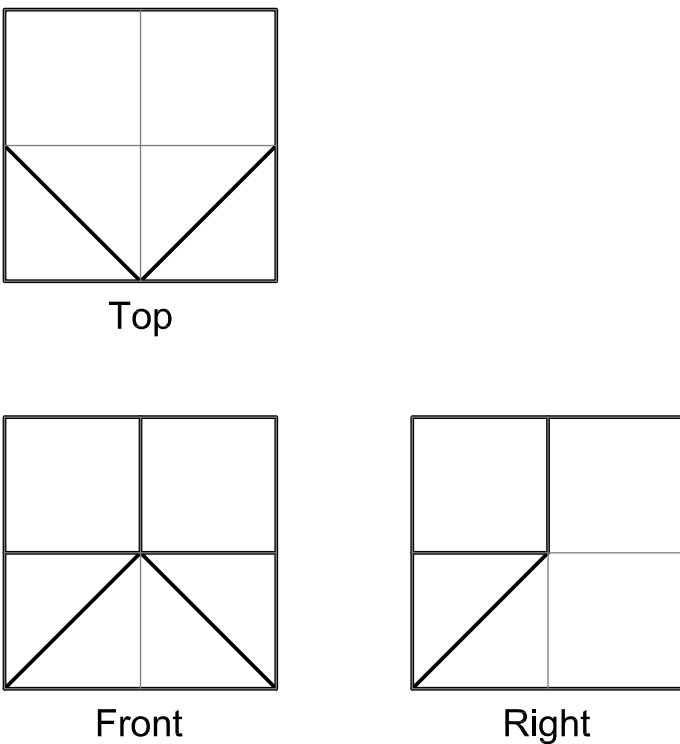
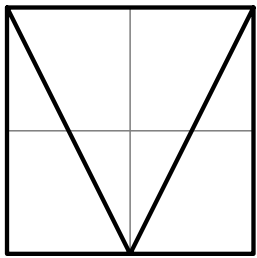
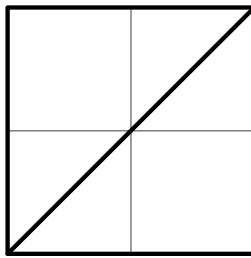


Abbildung 2.36: Rissleseübung Aufgabe ??

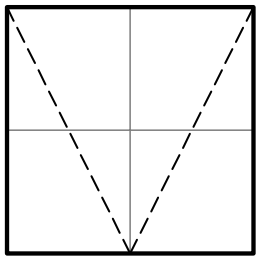
# Europäische Rissanordnung



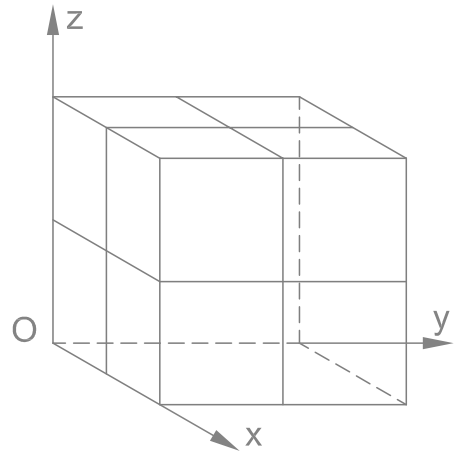
Aufriss



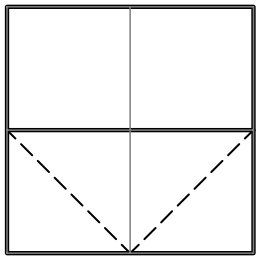
Kreuzriss  
(A. v. links)



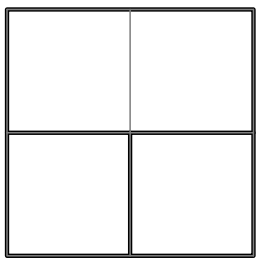
Grundriss



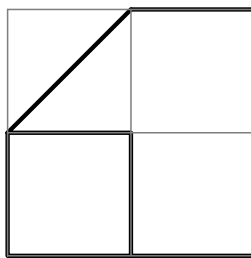
# Amerikanische Rissanordnung



Top



Front



Right

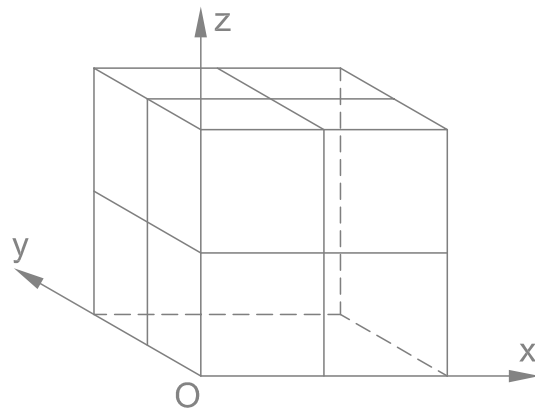
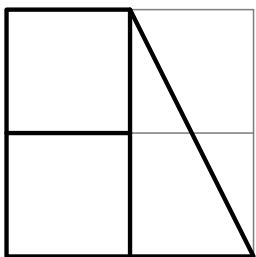
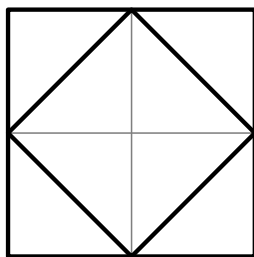


Abbildung 2.37: Rissleseübung Aufgabe ??

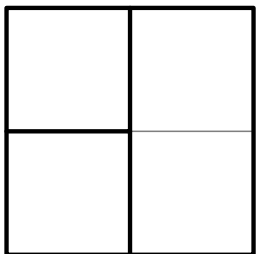
# Europäische Rissanordnung



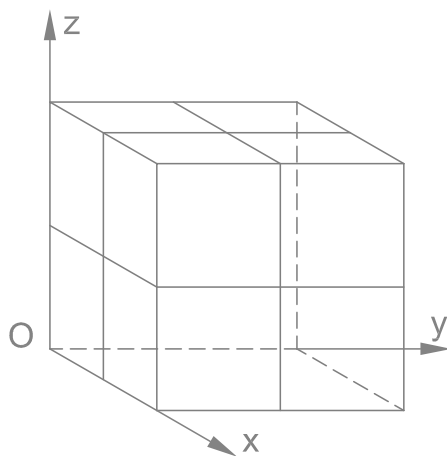
Aufriss



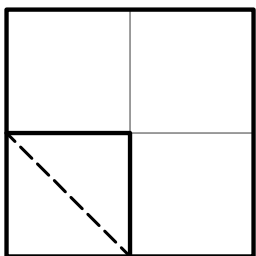
Kreuzriss  
(A. v. links)



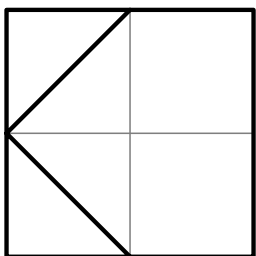
Grundriss



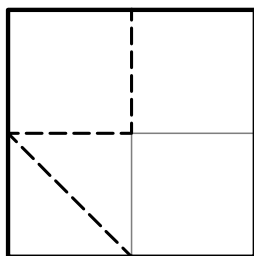
# Amerikanische Rissanordnung



Top



Front



Right

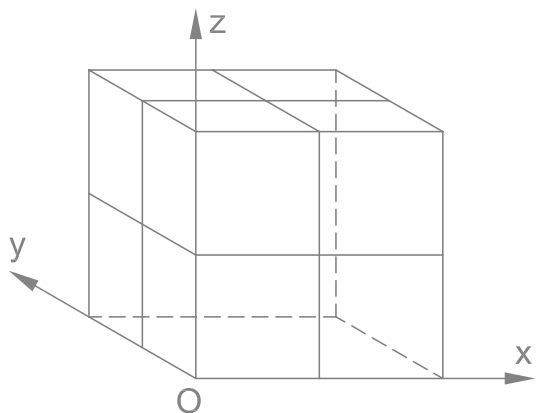
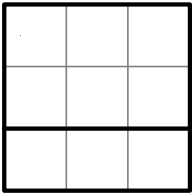
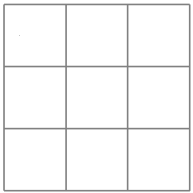


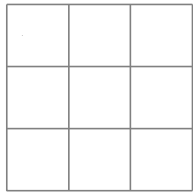
Abbildung 2.38: Rissleseübung Aufgabe ??



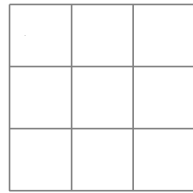
Aufriss



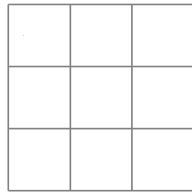
Kreuzriss  
(A. v. links)



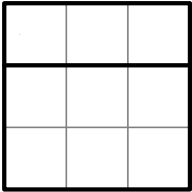
Kreuzriss  
(A. v. links)



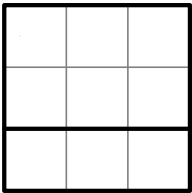
Kreuzriss  
(A. v. links)



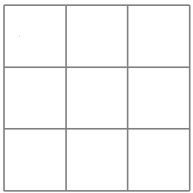
Kreuzriss  
(A. v. links)



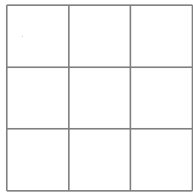
Grundriss



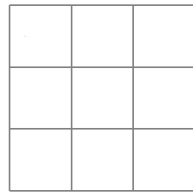
Aufriss



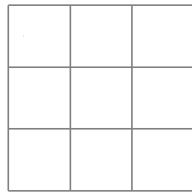
Kreuzriss  
(A. v. links)



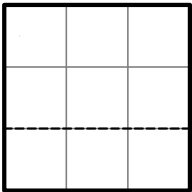
Kreuzriss  
(A. v. links)



Kreuzriss  
(A. v. links)



Kreuzriss  
(A. v. links)



Grundriss

Abbildung 2.39: Rissleseübung Aufgabe ??

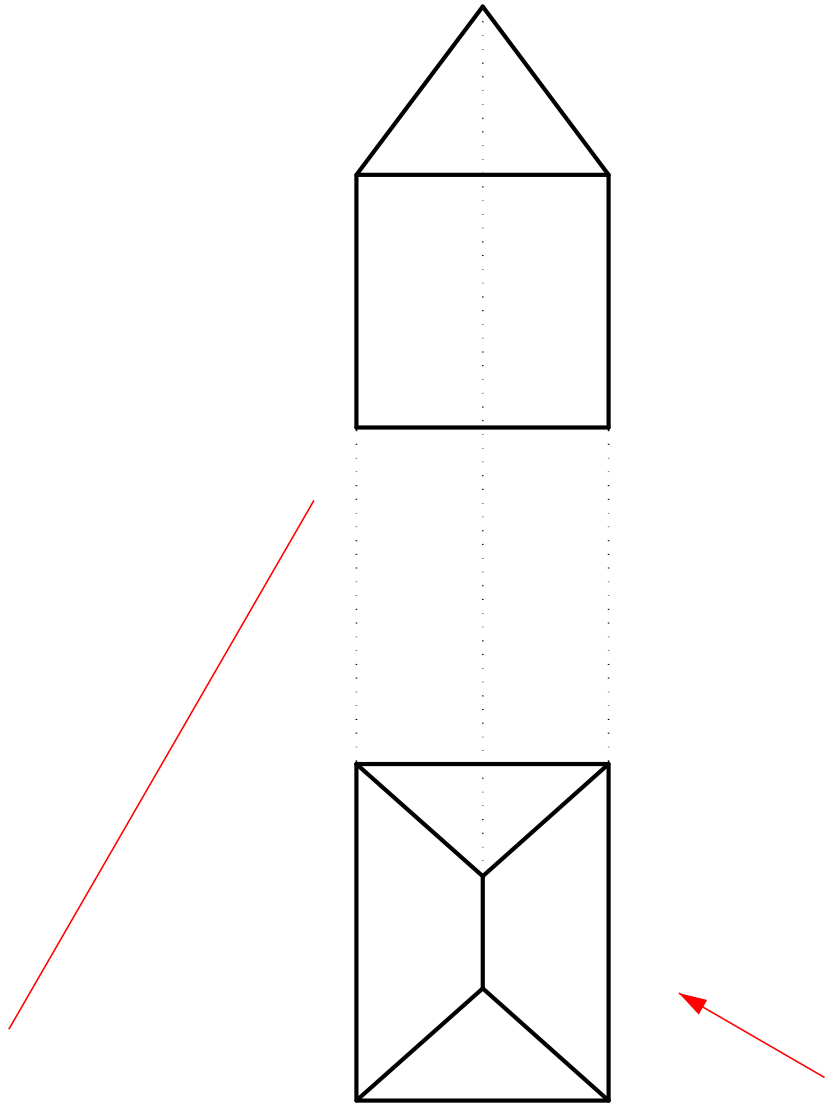


Abbildung 2.44: Seitenriss zum Grundriss

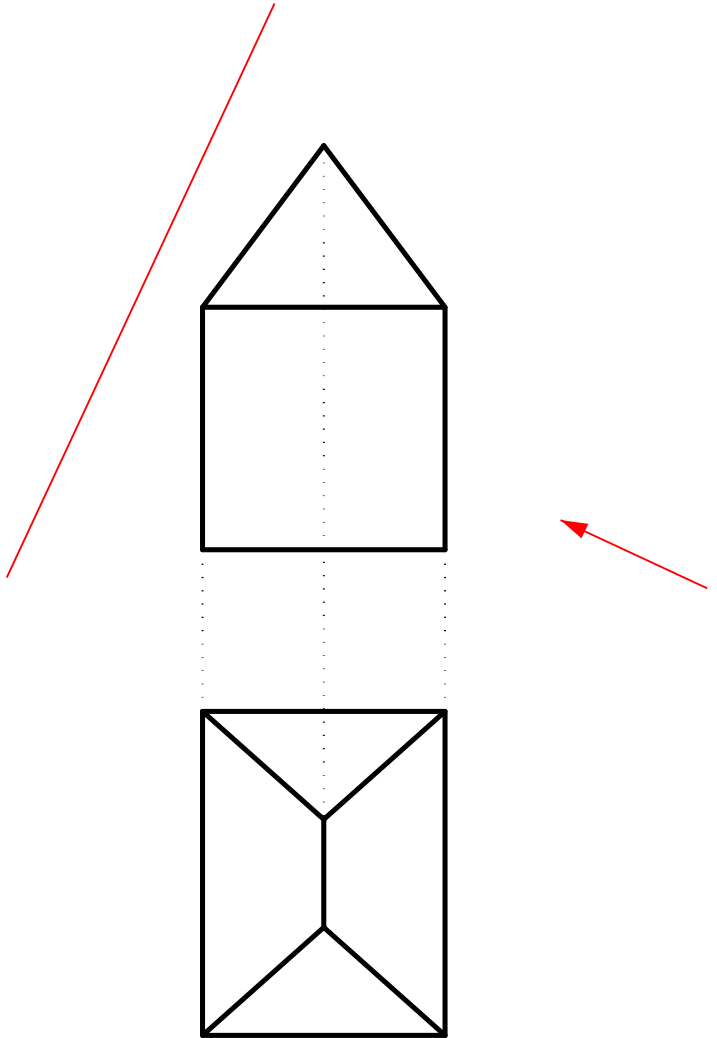


Abbildung 2.45: Seitenriss zum Aufriss

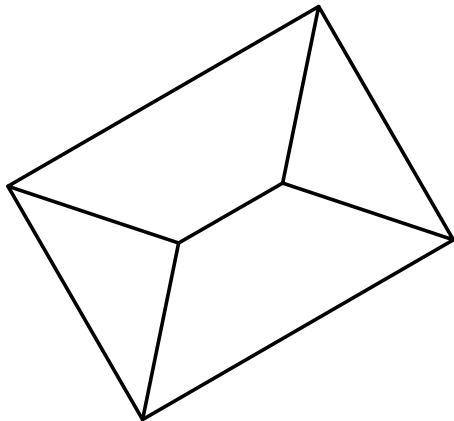
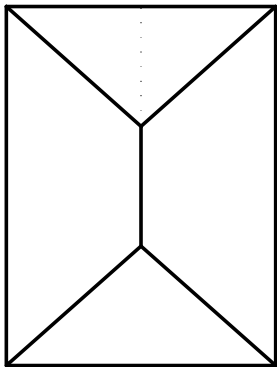
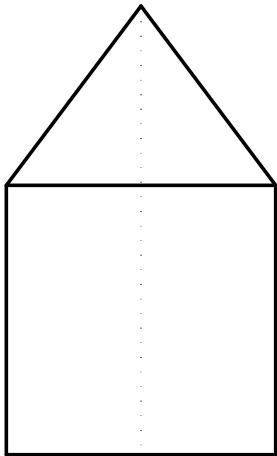


Abbildung 2.47: Gedrehter Grundriss

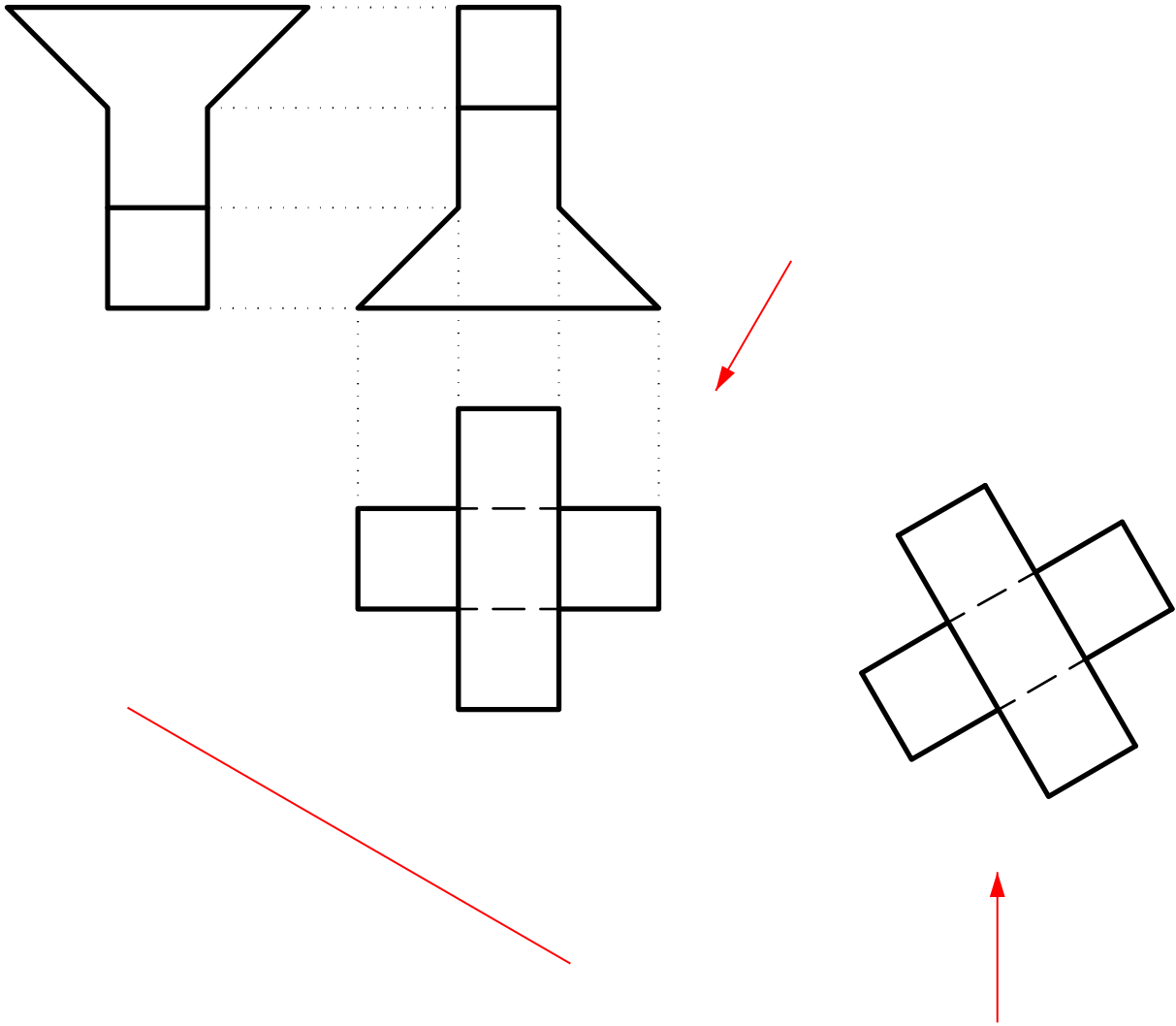


Abbildung 2.48: Seitenriss – gedrehter Grundriss



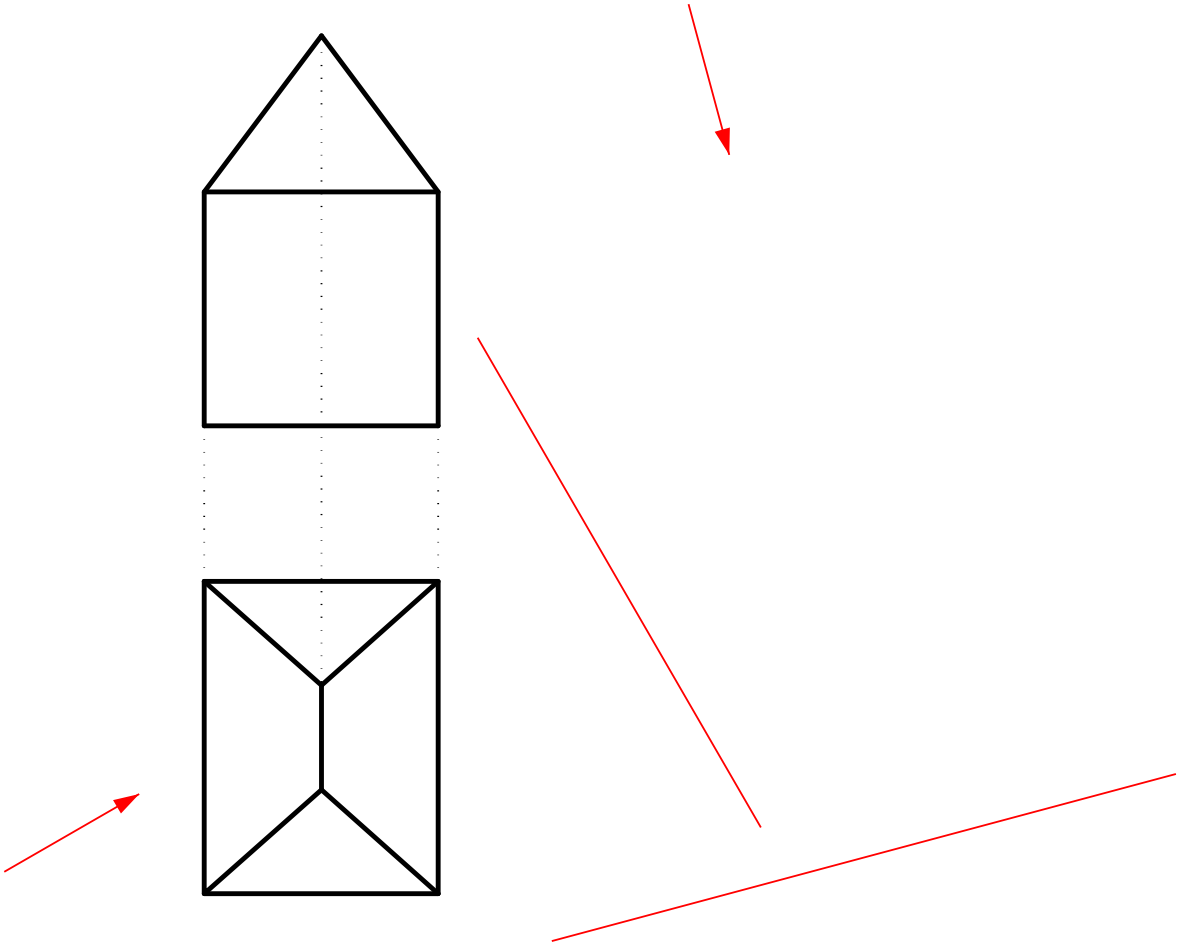


Abbildung 2.49: Doppelter Seitenriss

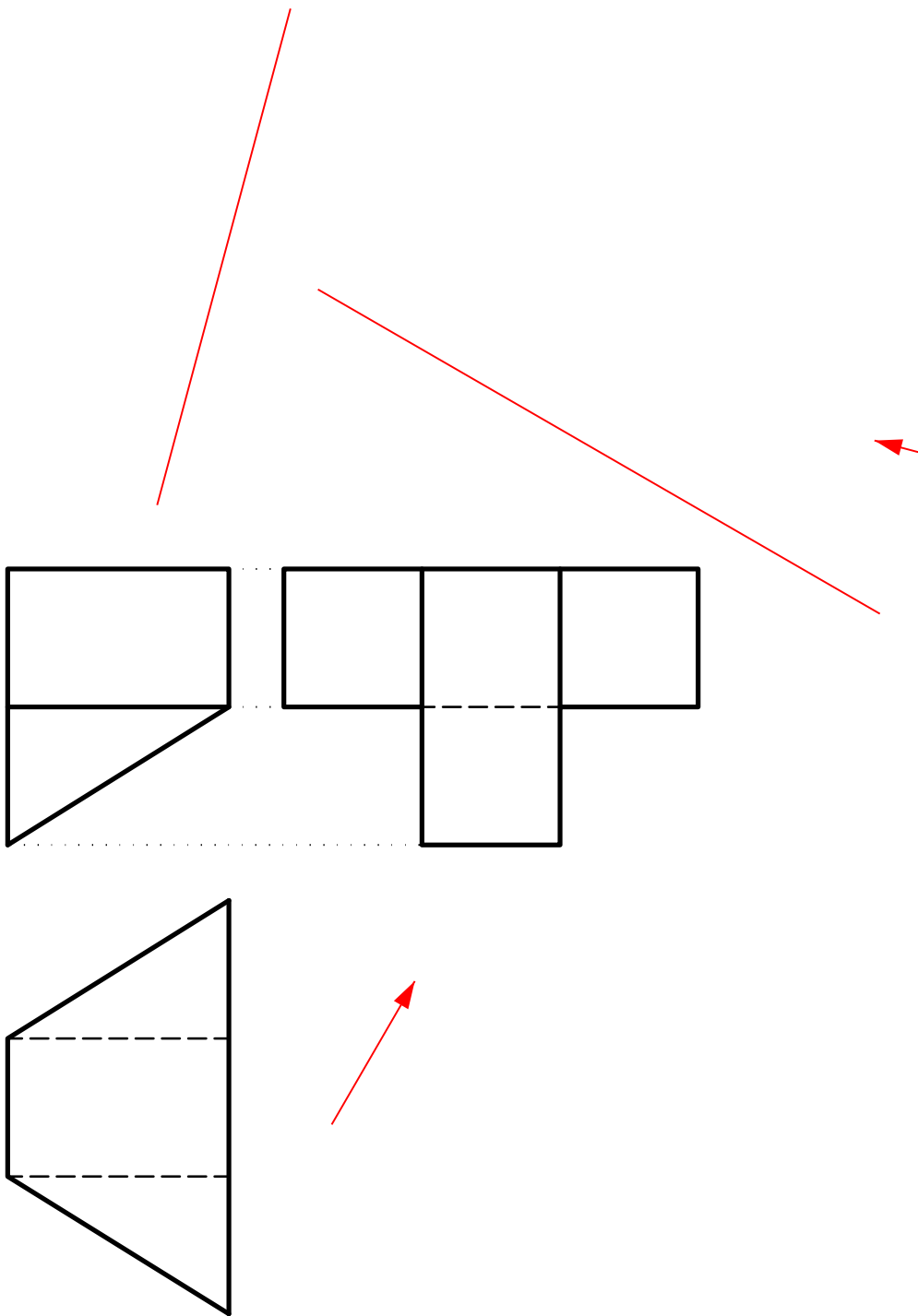


Abbildung 2.50: Doppelter Seitenriss

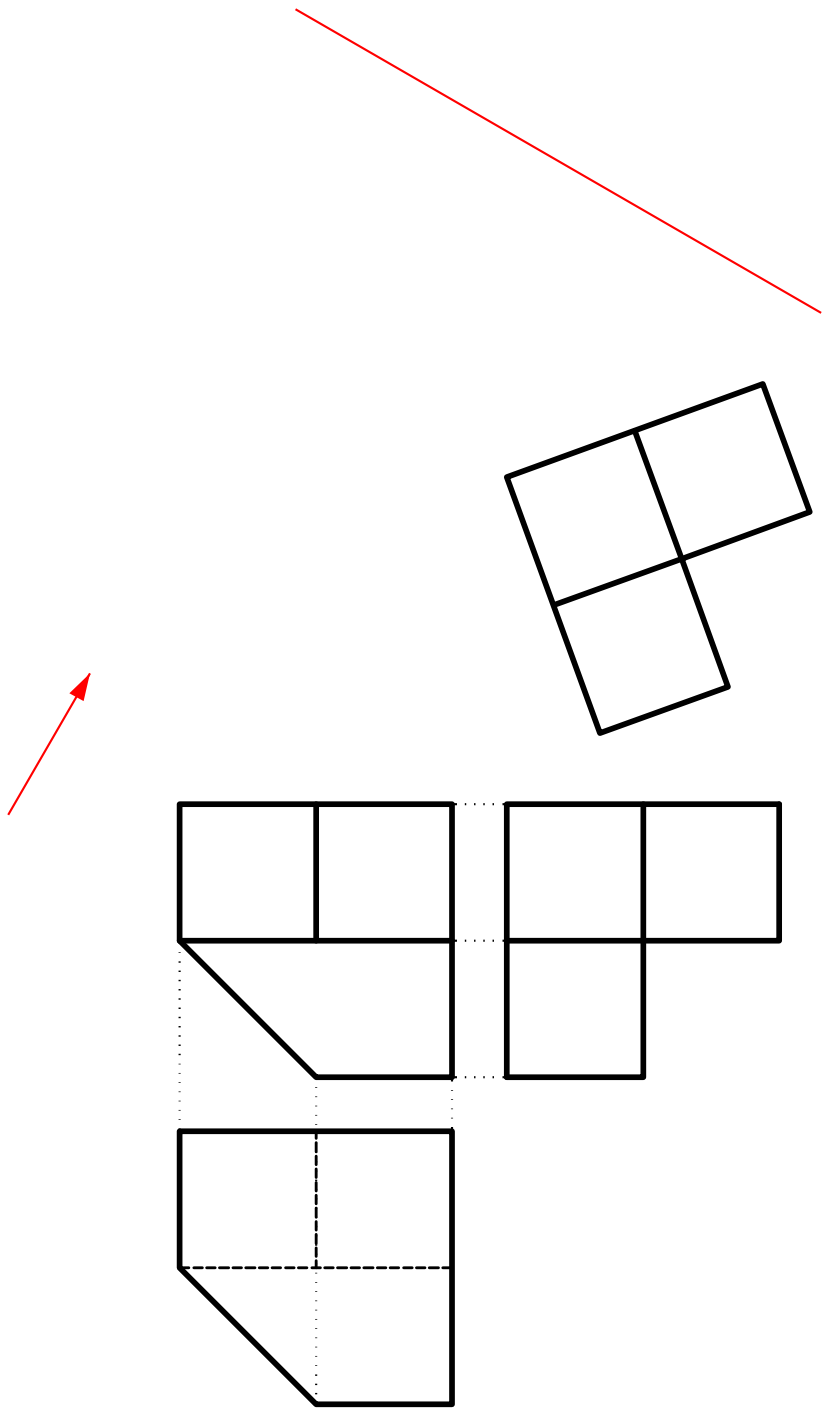


Abbildung 2.51: Gedrehter Grundriss – Seitenriss

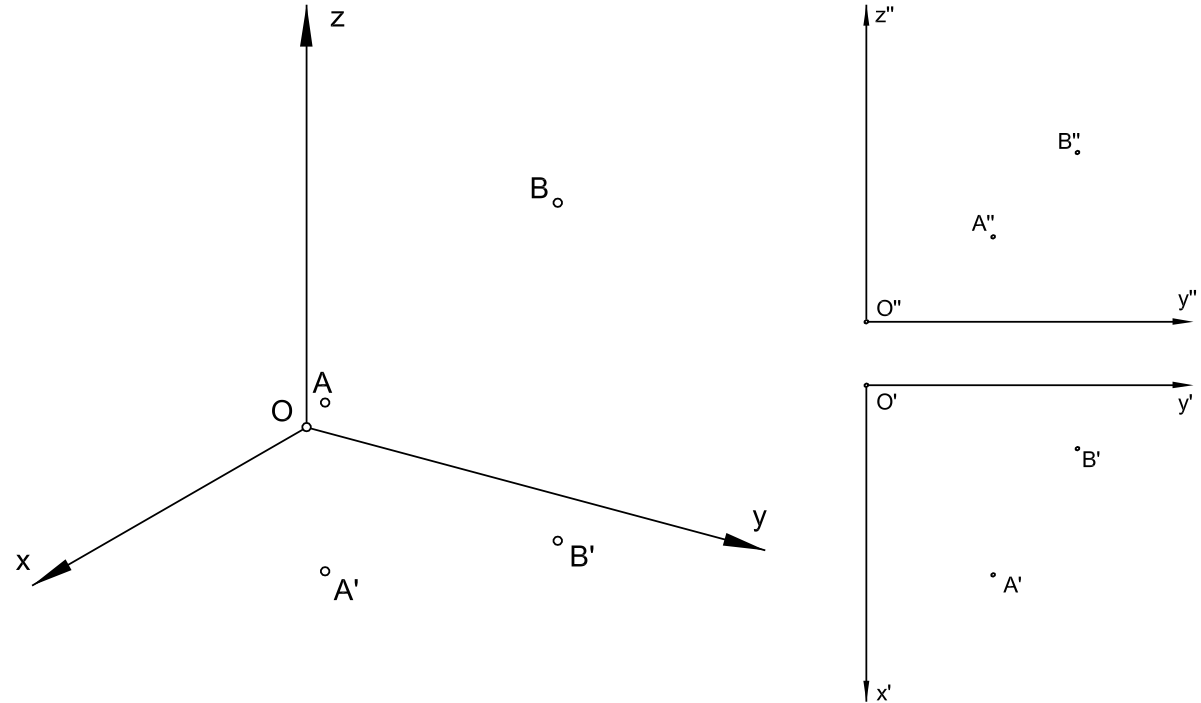


Abbildung 3.1: Geradendarstellung-Spurpunkte

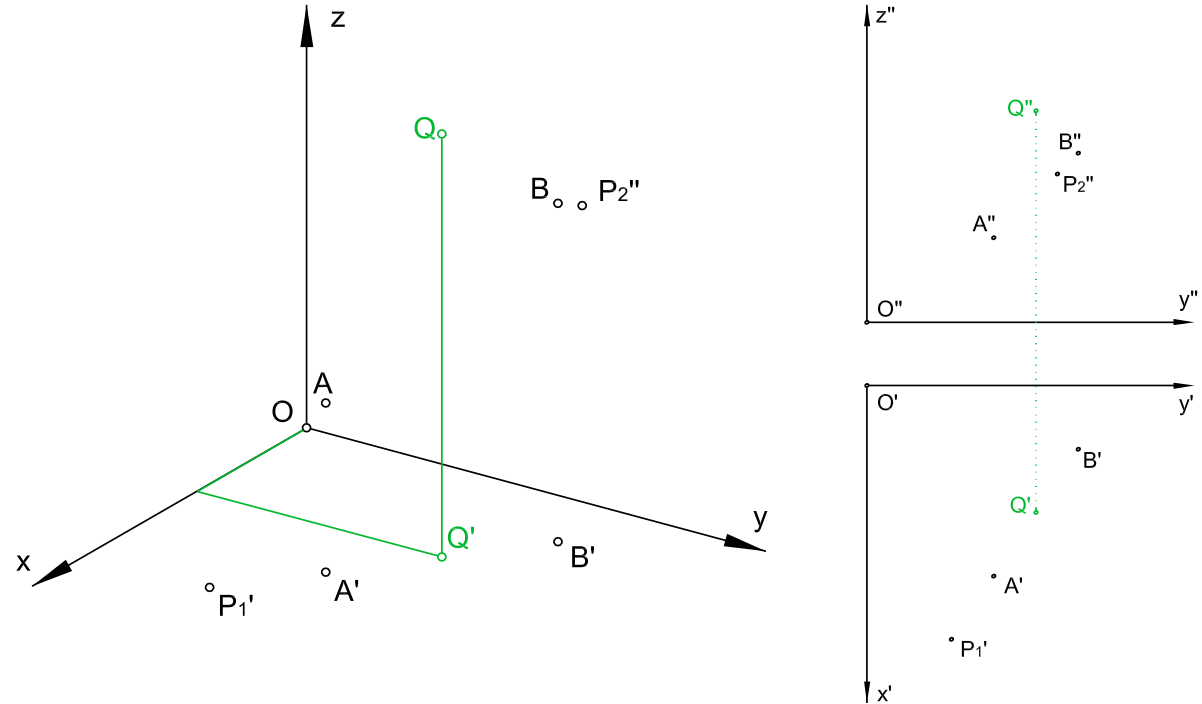


Abbildung 3.2: Inzidenz Punkt-Gerade

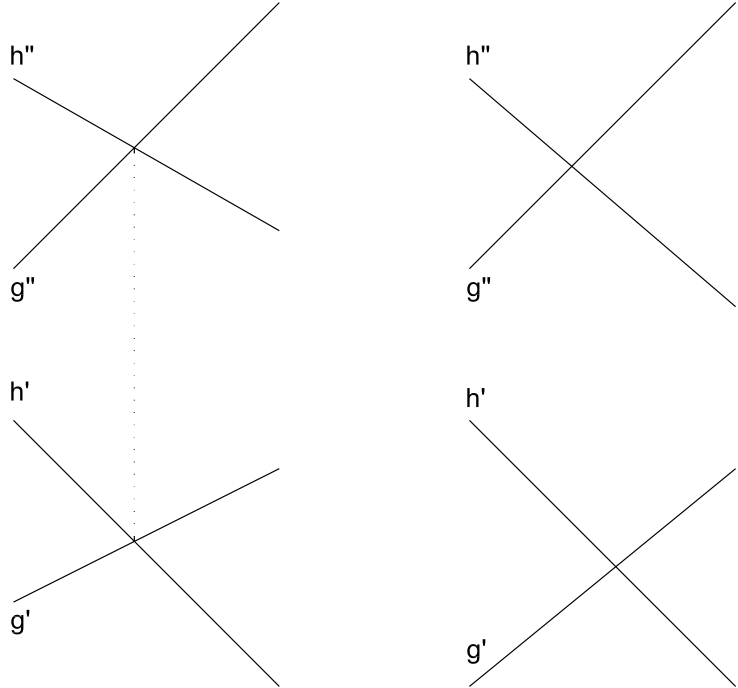


Abbildung 3.4: Schneidende und windschiefe Geraden

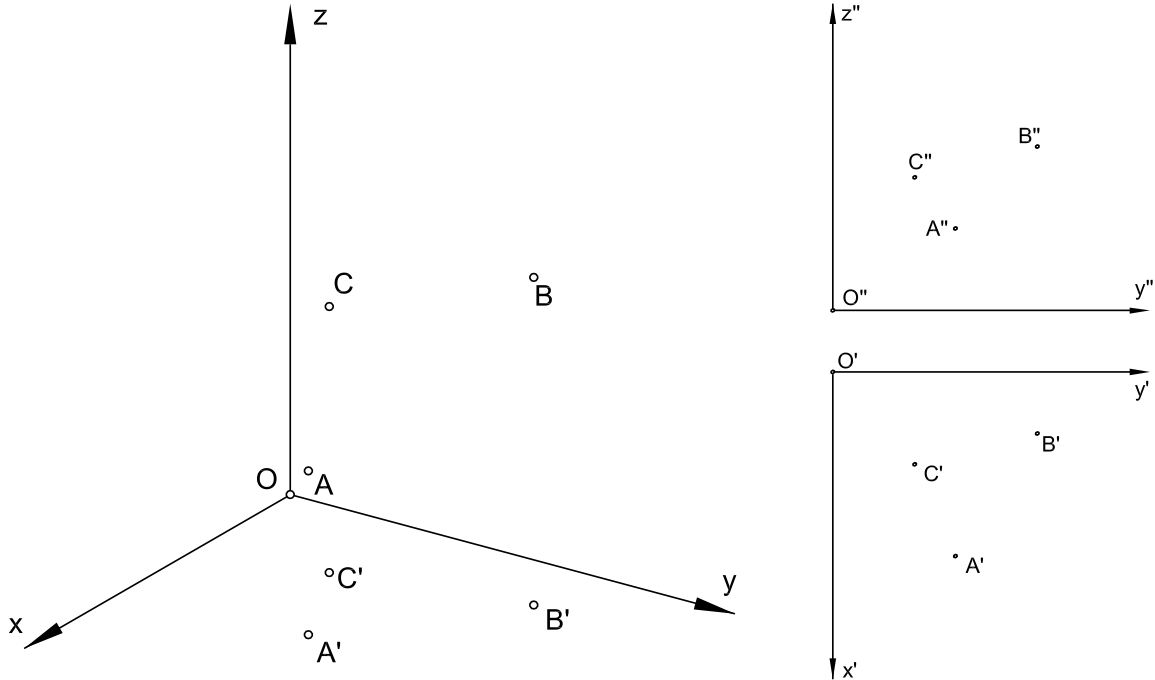


Abbildung 3.5: Ebenendarstellung

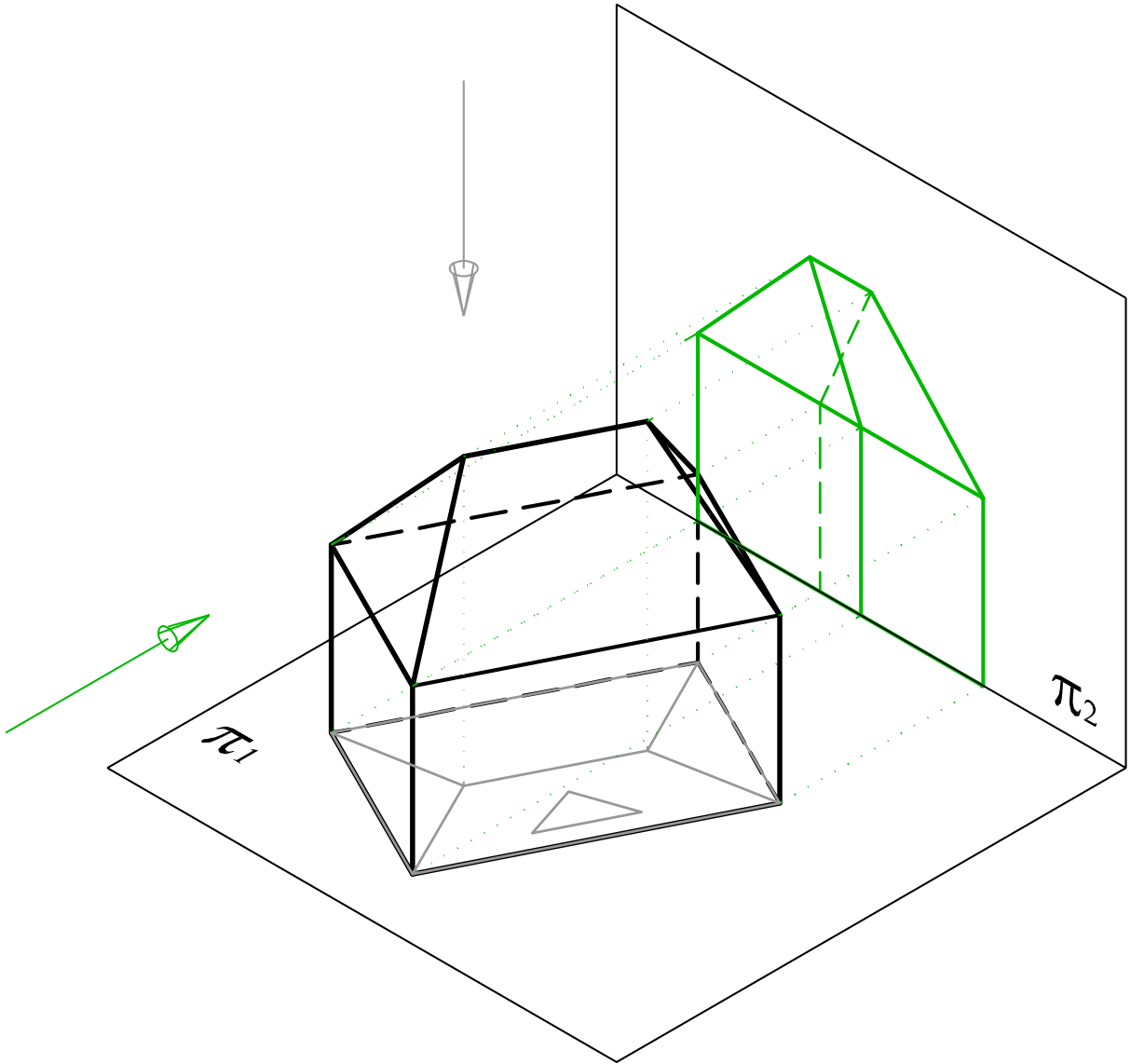


Abbildung 3.7: Angittern an eine Ebene



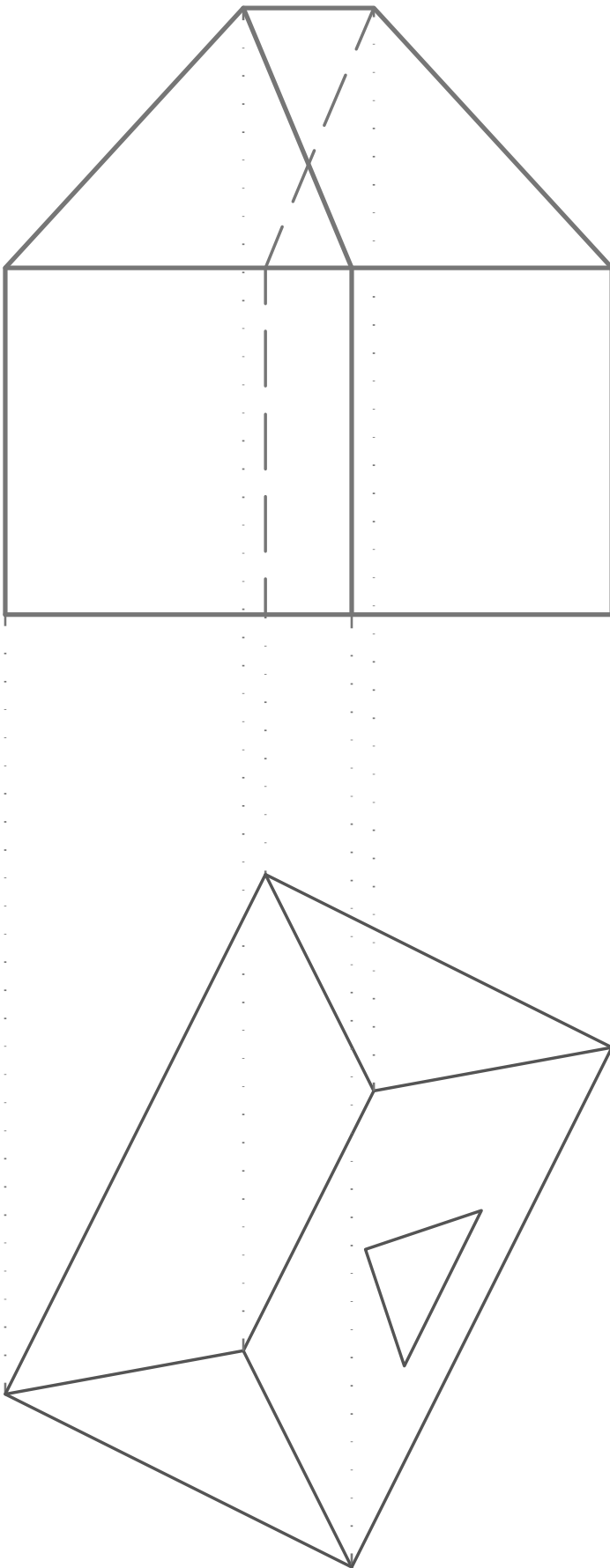


Abbildung 3.8: Angittern an eine Ebene

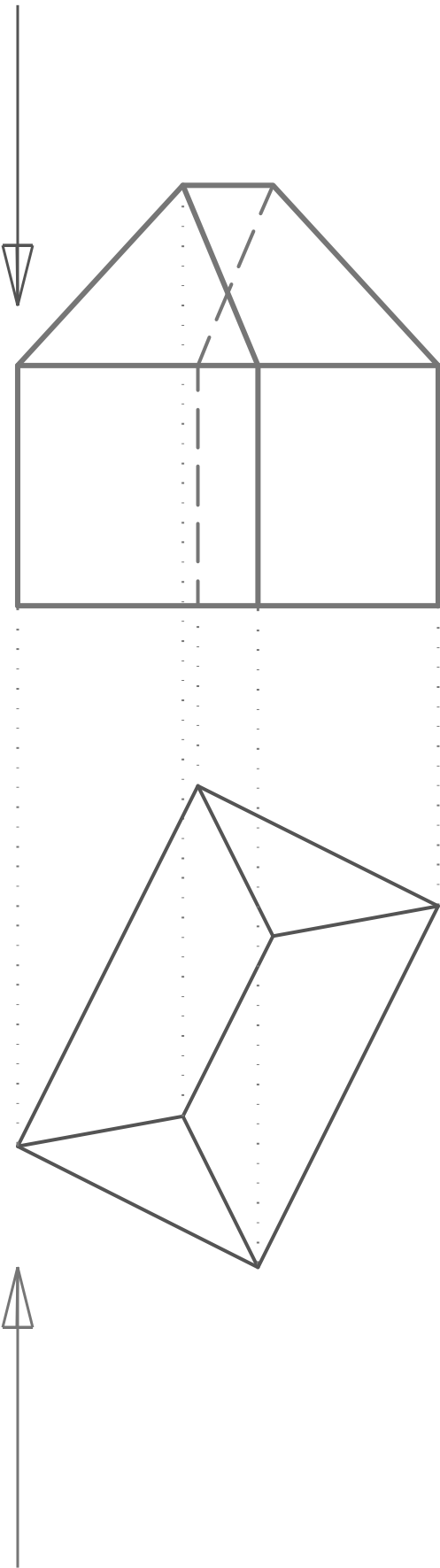


Abbildung 3.10: Projizierend Machen einer Ebene

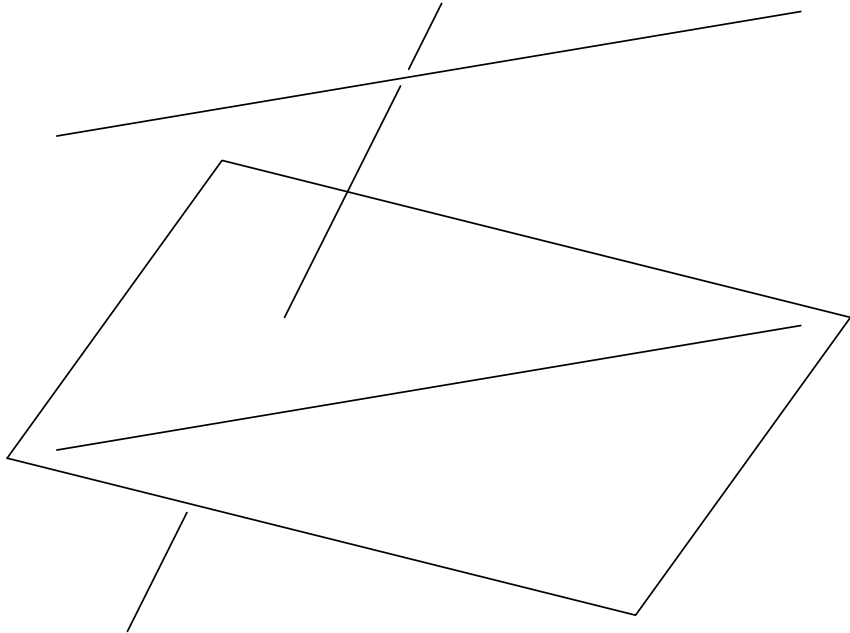


Abbildung 3.11: Gegenseitige Lage von Gerade und Ebene

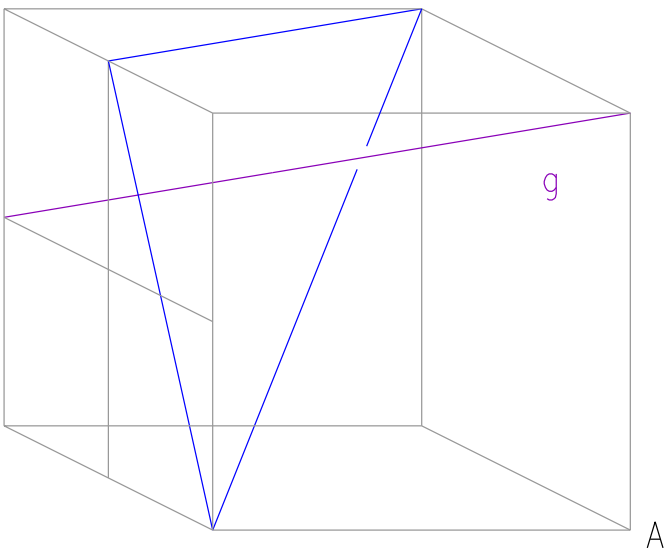
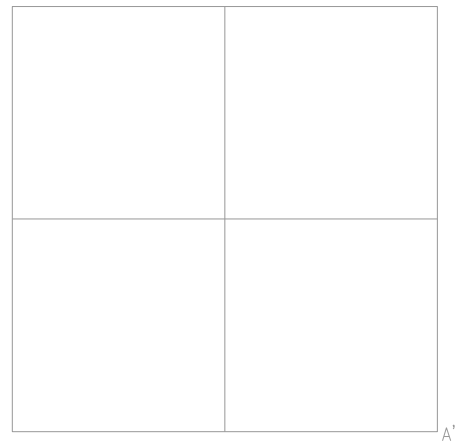
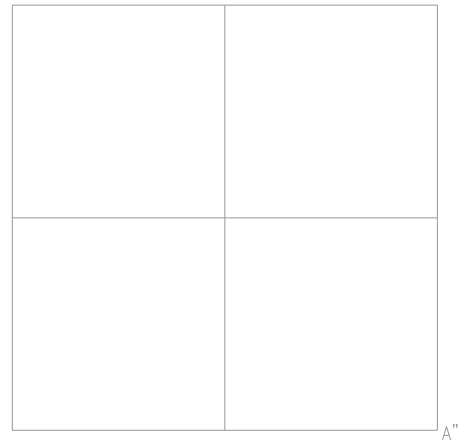
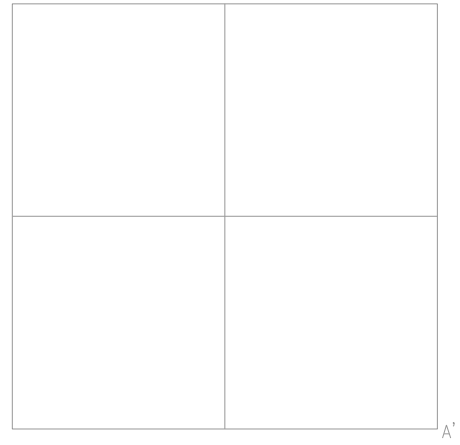
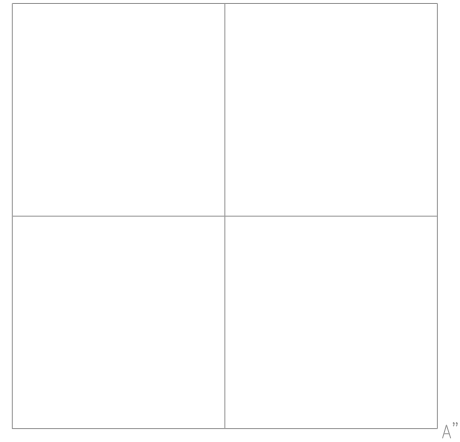
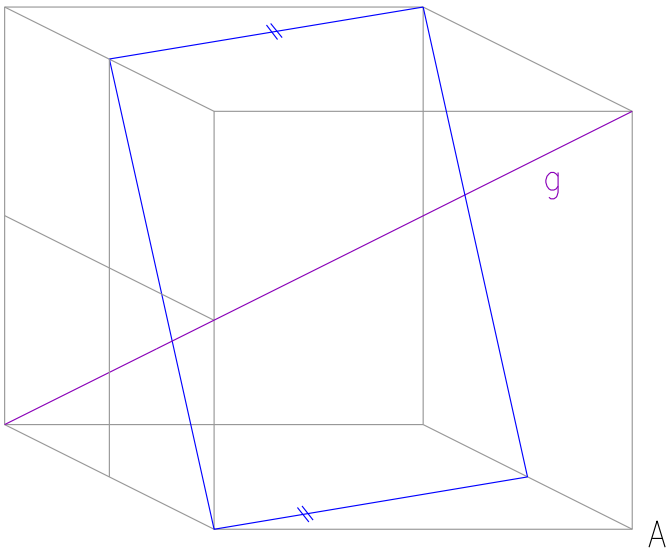


Abbildung 3.12: Durchstoßpunkt Gerade-Ebene

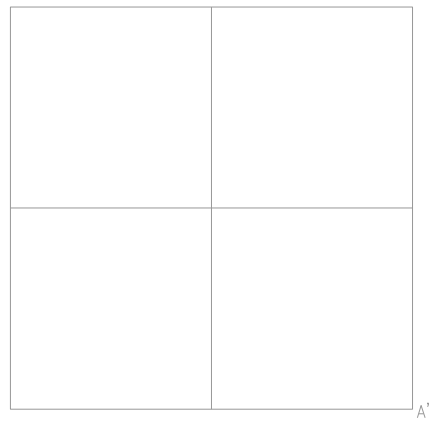
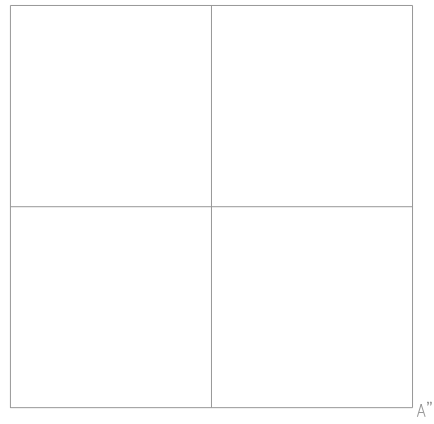
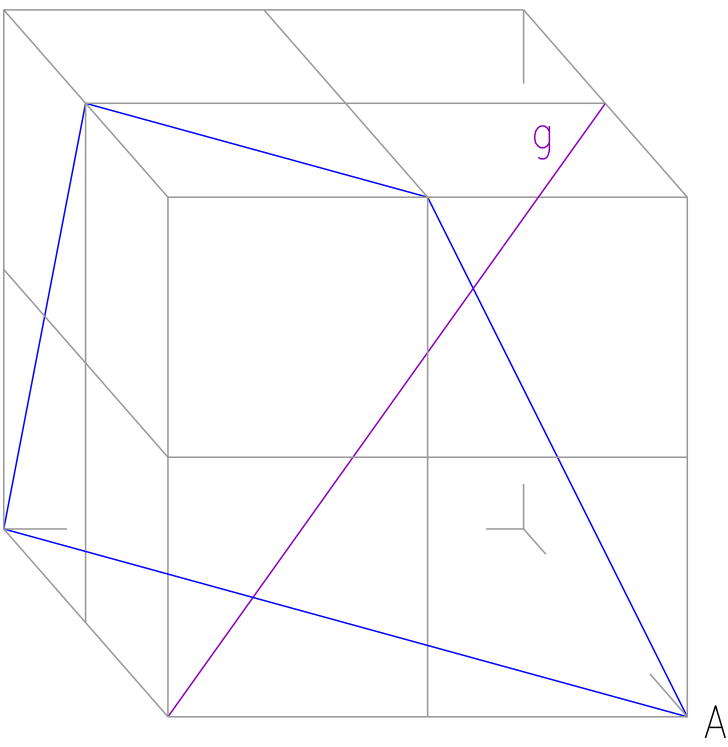
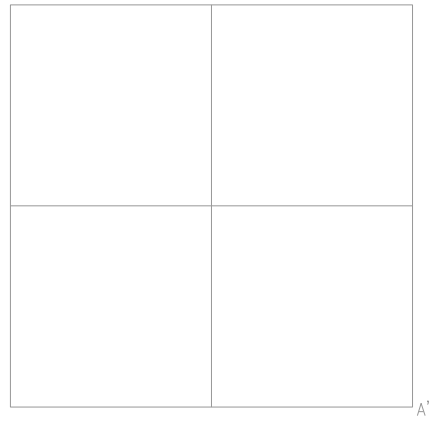
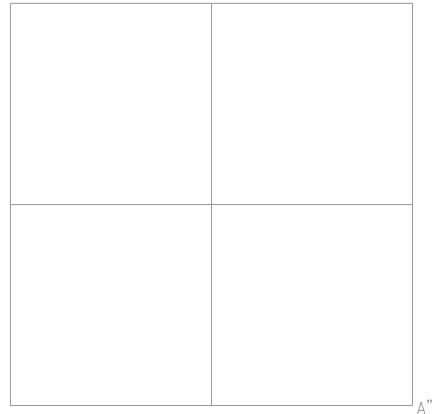
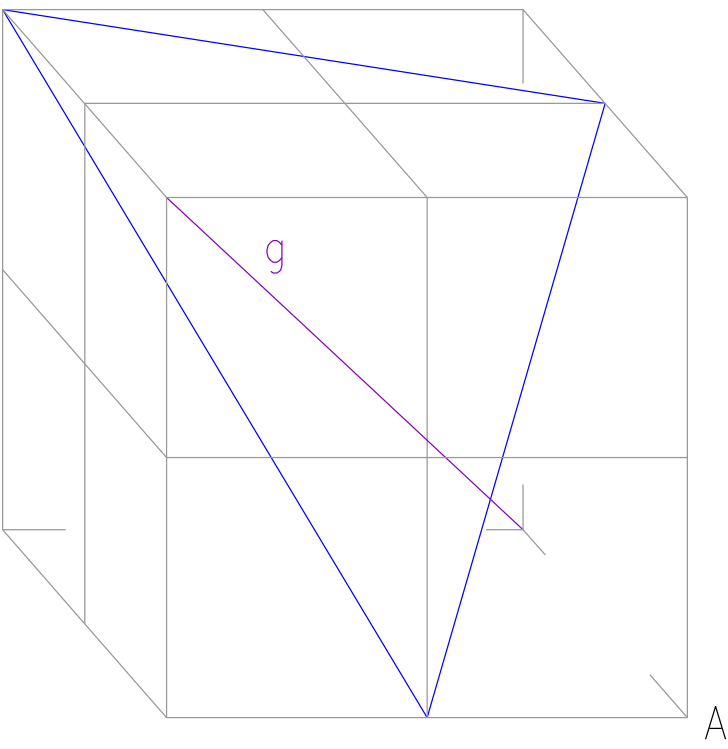


Abbildung 3.13: Durchstoßpunkt Gerade-Ebene

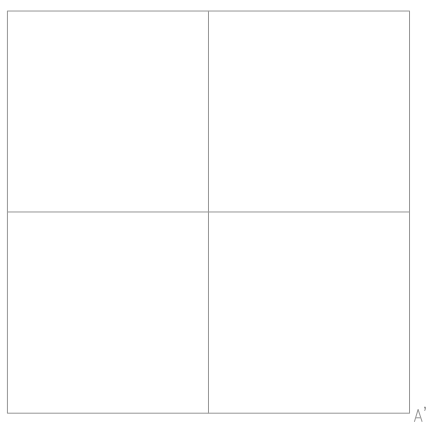
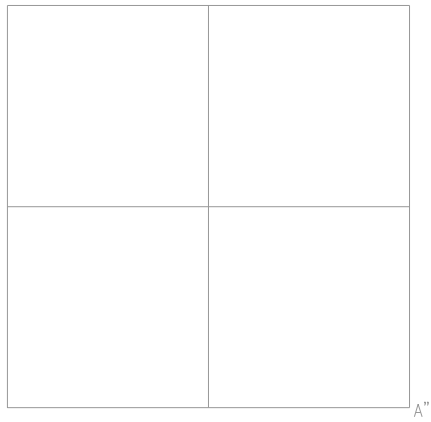
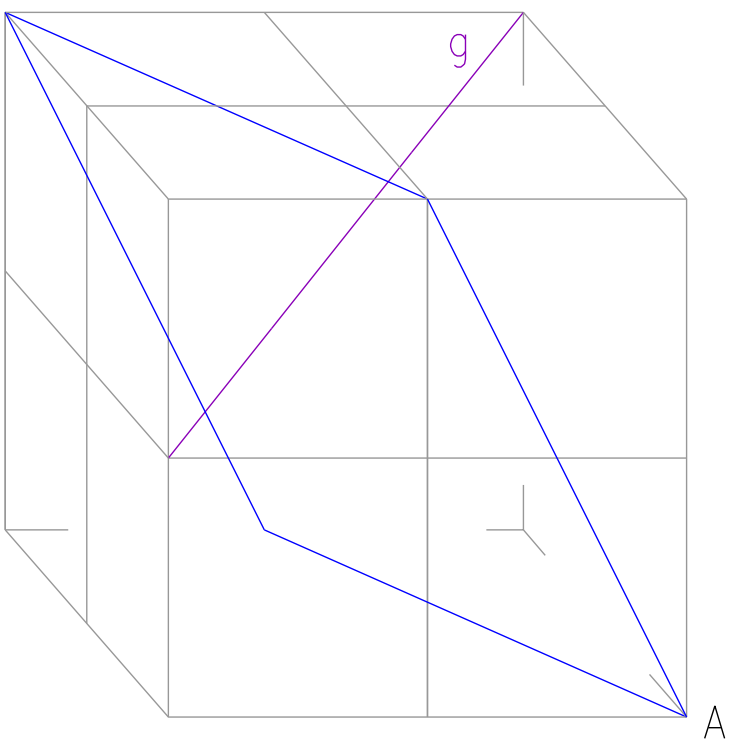
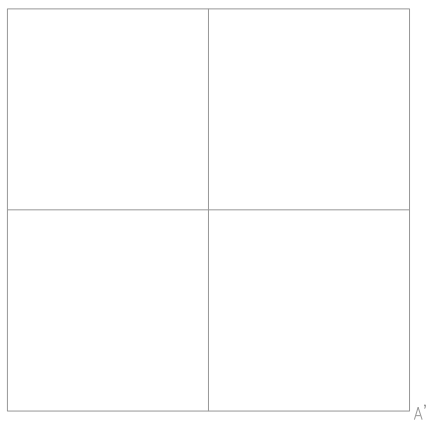
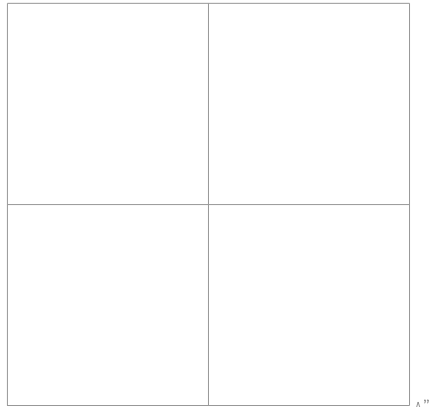
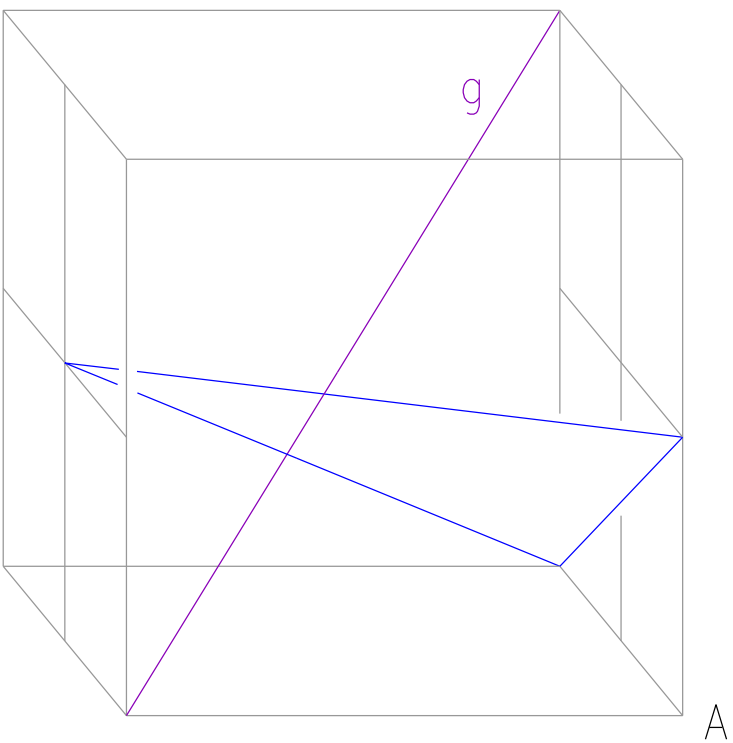


Abbildung 3.14: Durchstoßpunkt Gerade Ebene

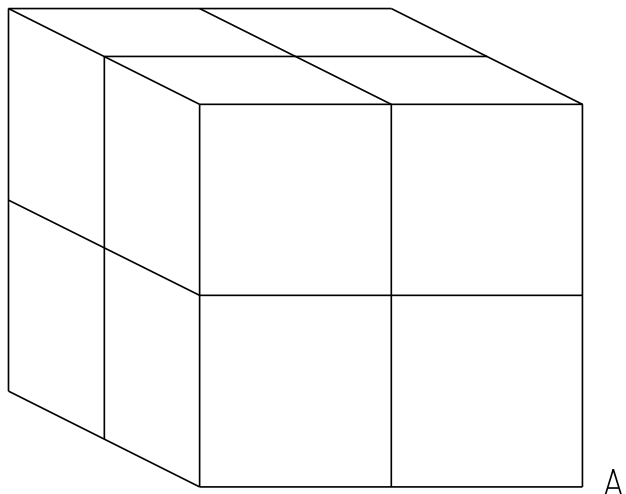
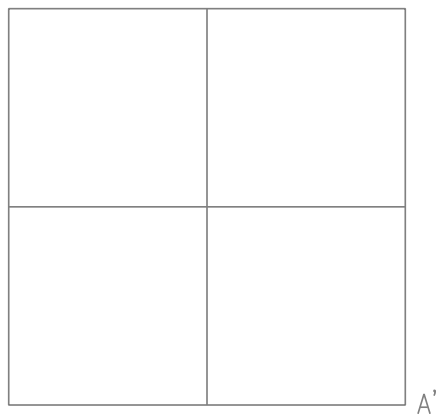
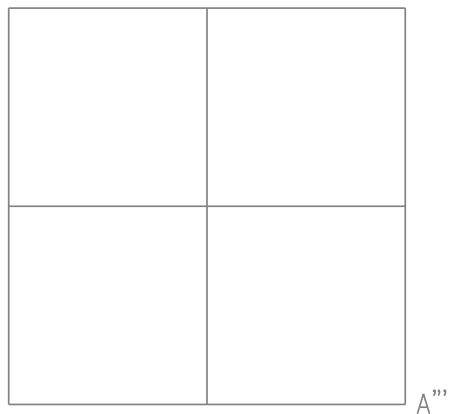
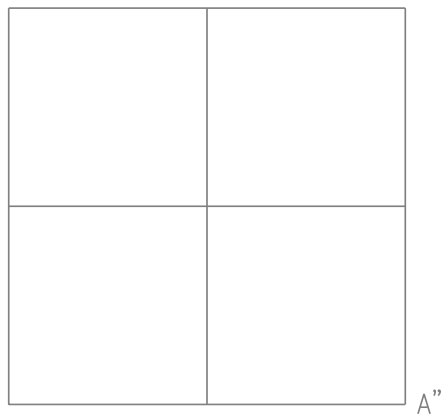
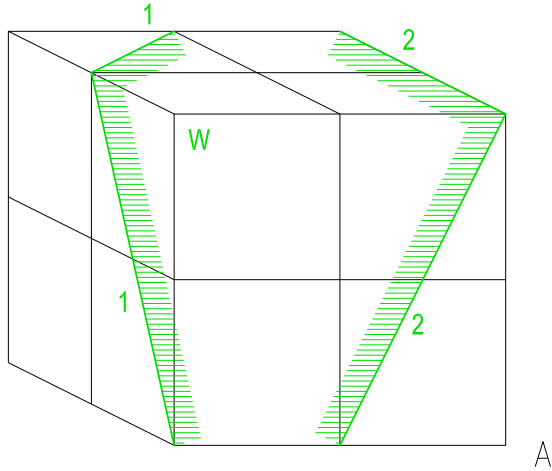


Abbildung 3.16: Beim massiv gedachten Würfel sind die Sägeschnitte 1-1 und 2-2 so weit zu führen, bis sie einander treffen; der mit  $W$  bezeichnete Würfelpart ist wegzunehmen!

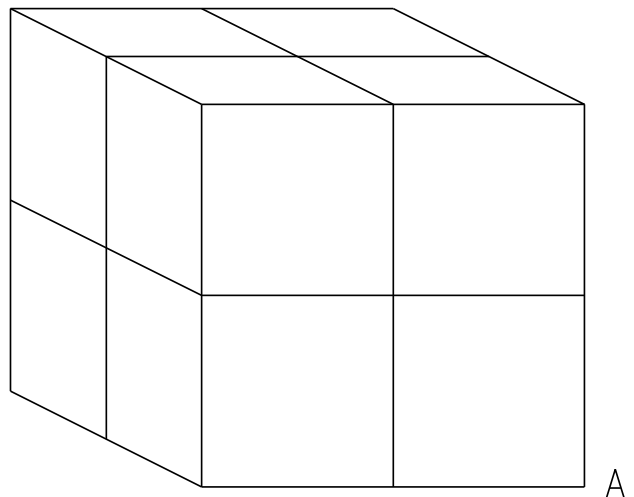
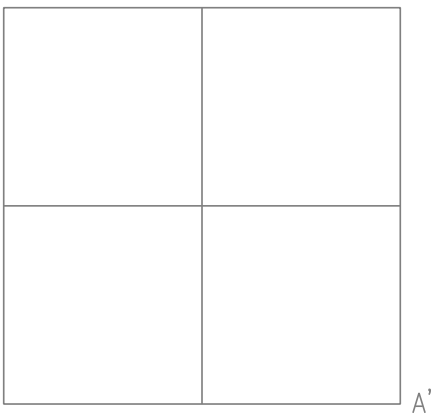
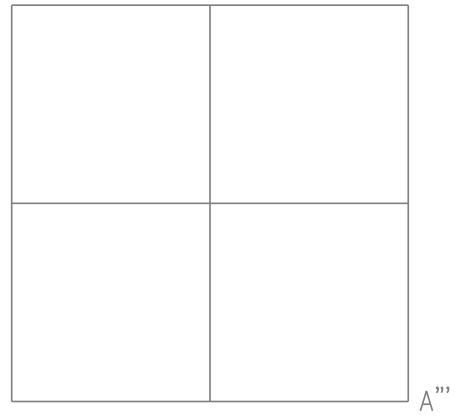
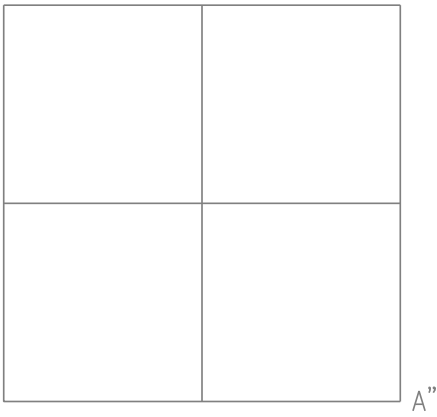
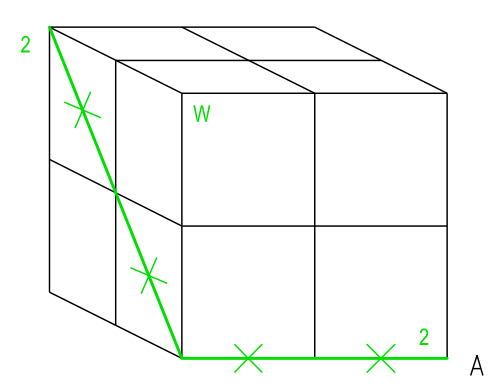
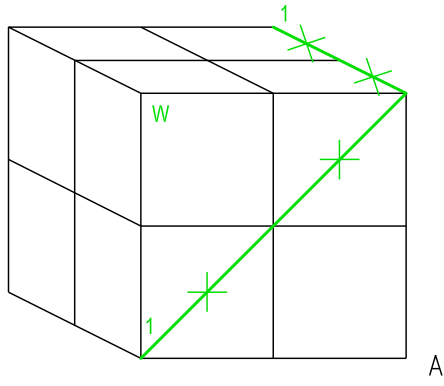
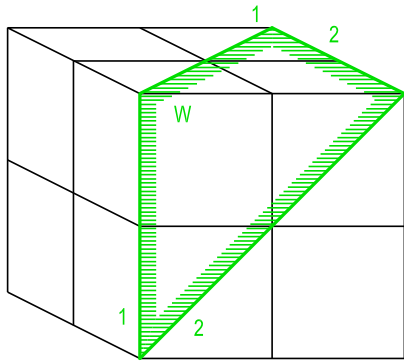
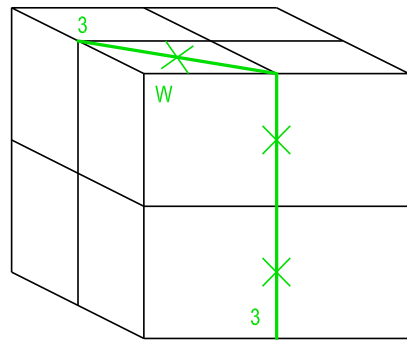


Abbildung 3.17: Beim massiv gedachten Würfel sind die Sägeschnitte 1-1 und 2-2 durchgehend; die mit  $W$  bezeichnete Würfelteil ist wegzunehmen!

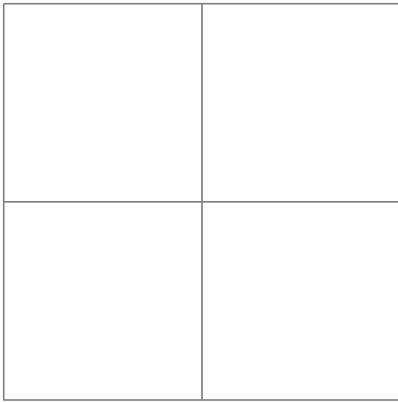




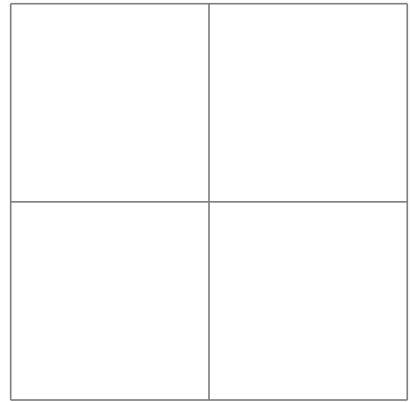
A



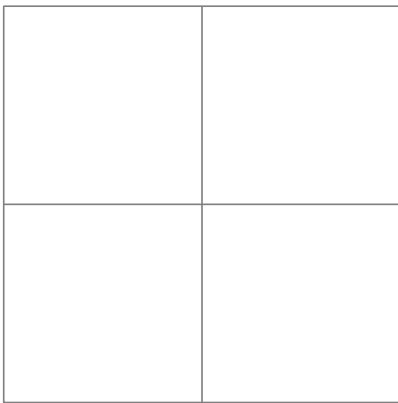
A



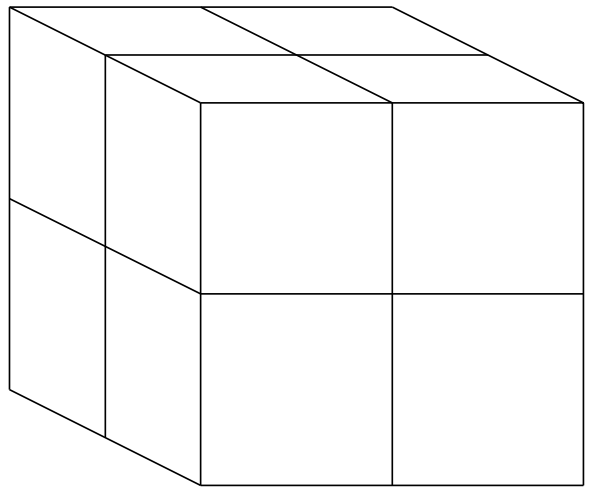
A''



A'''



A'



A

Abbildung 3.18: Beim massiv gedachten Würfel sind die Sägeschnitte 1-1 und 2-2 so weit zu führen, bis sie einander treffen; der Schnitt 3-3 ist durchgehend; die mit W bezeichneten Würfelteile sind wegzunehmen!

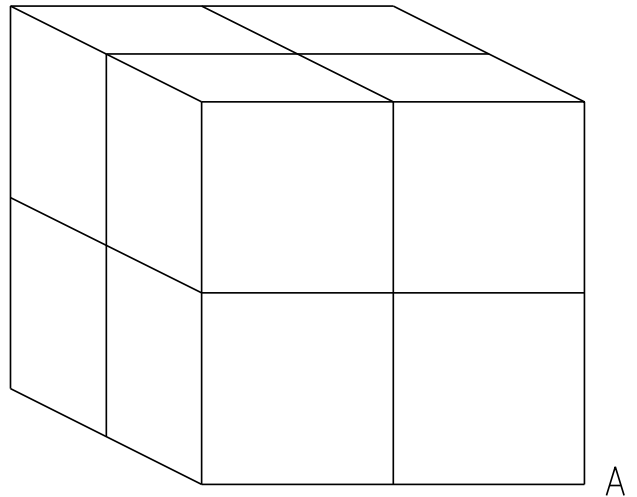
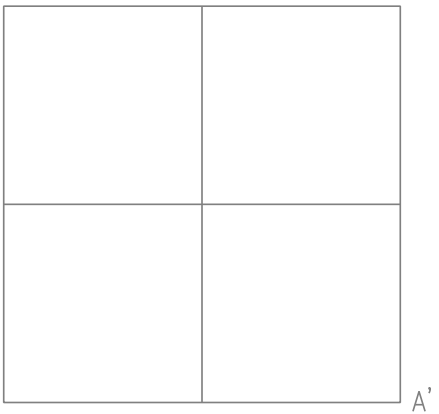
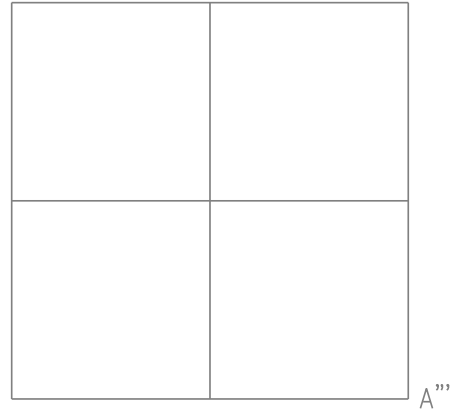
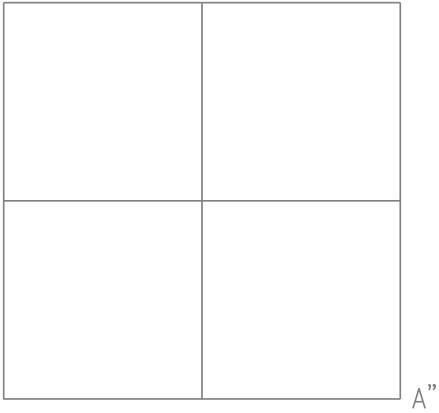
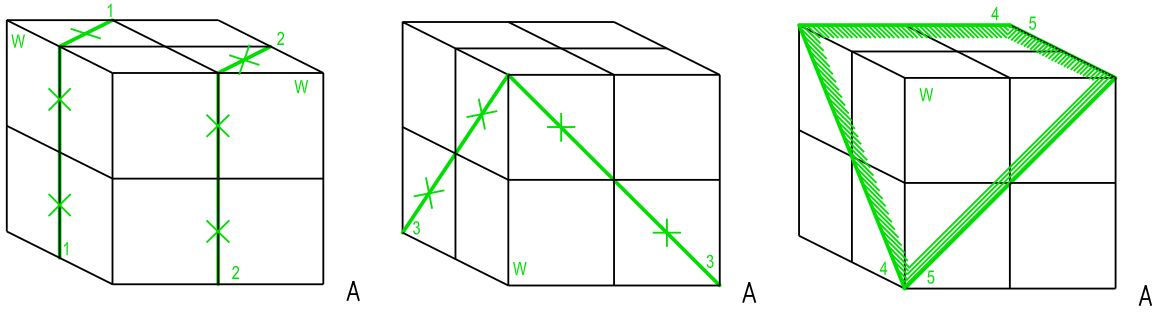


Abbildung 3.19: Beim massiv gedachten Würfel sind die Sägeschnitte 1-1, 2-2 und 3-3 durchgehend; die Schnitte 4-4 und 5-5 sind so weit zu führen, bis sie einander treffen; die mit  $W$  bezeichneten Würfelteile sind wegzunehmen!

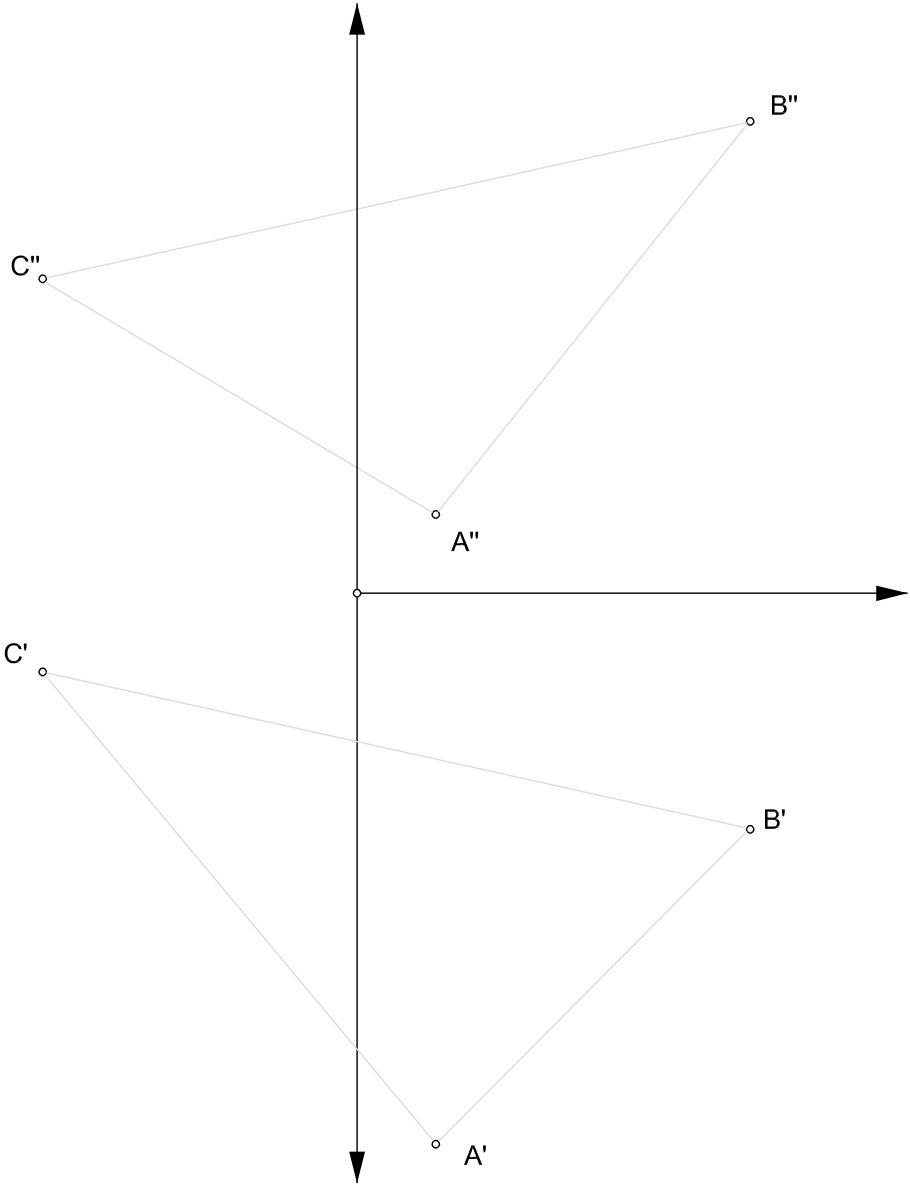


Abbildung 3.20: Schnitt Dreieck-Parallelogramm

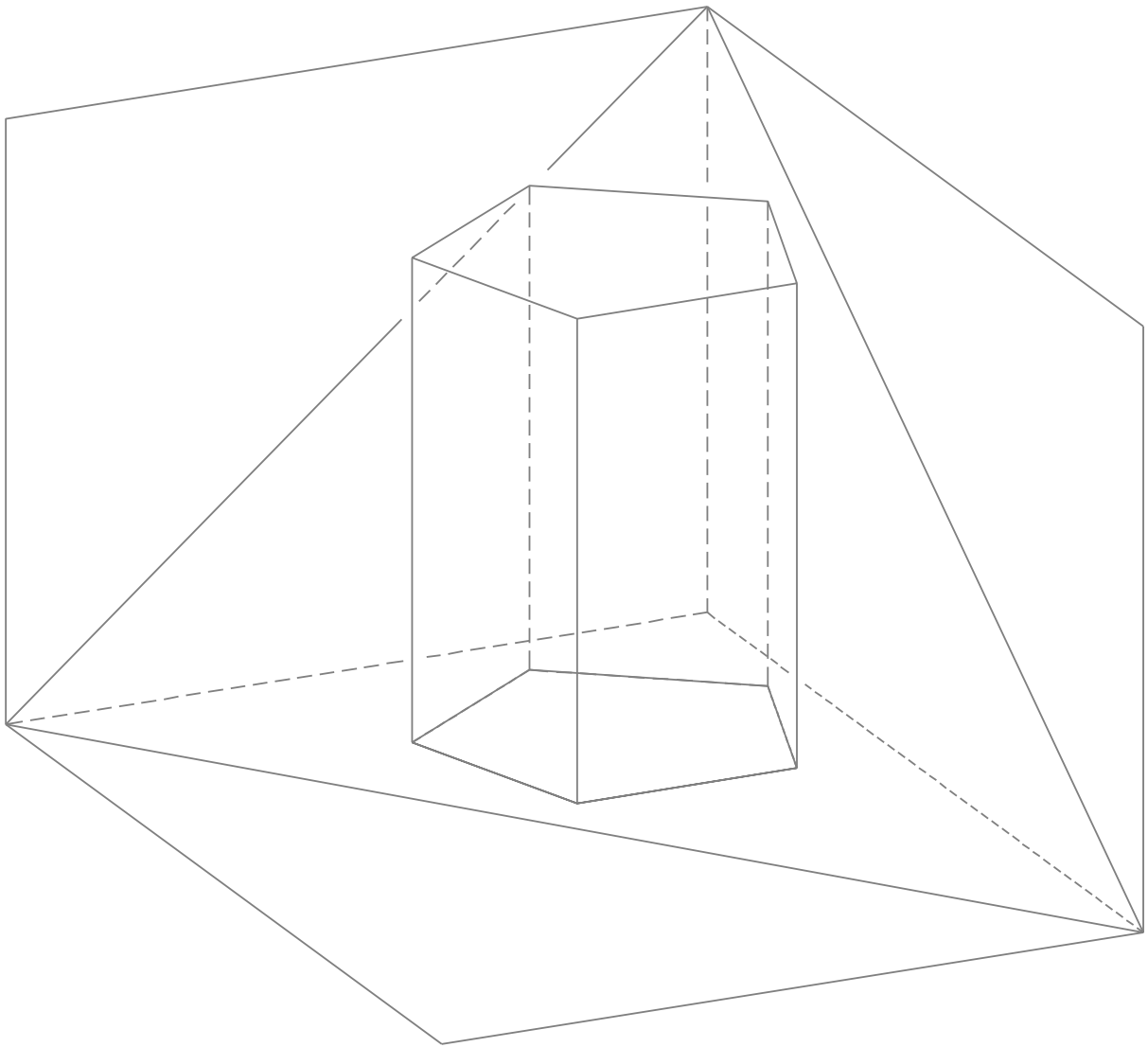


Abbildung 3.30: Prismenschnitt in Axonometrie

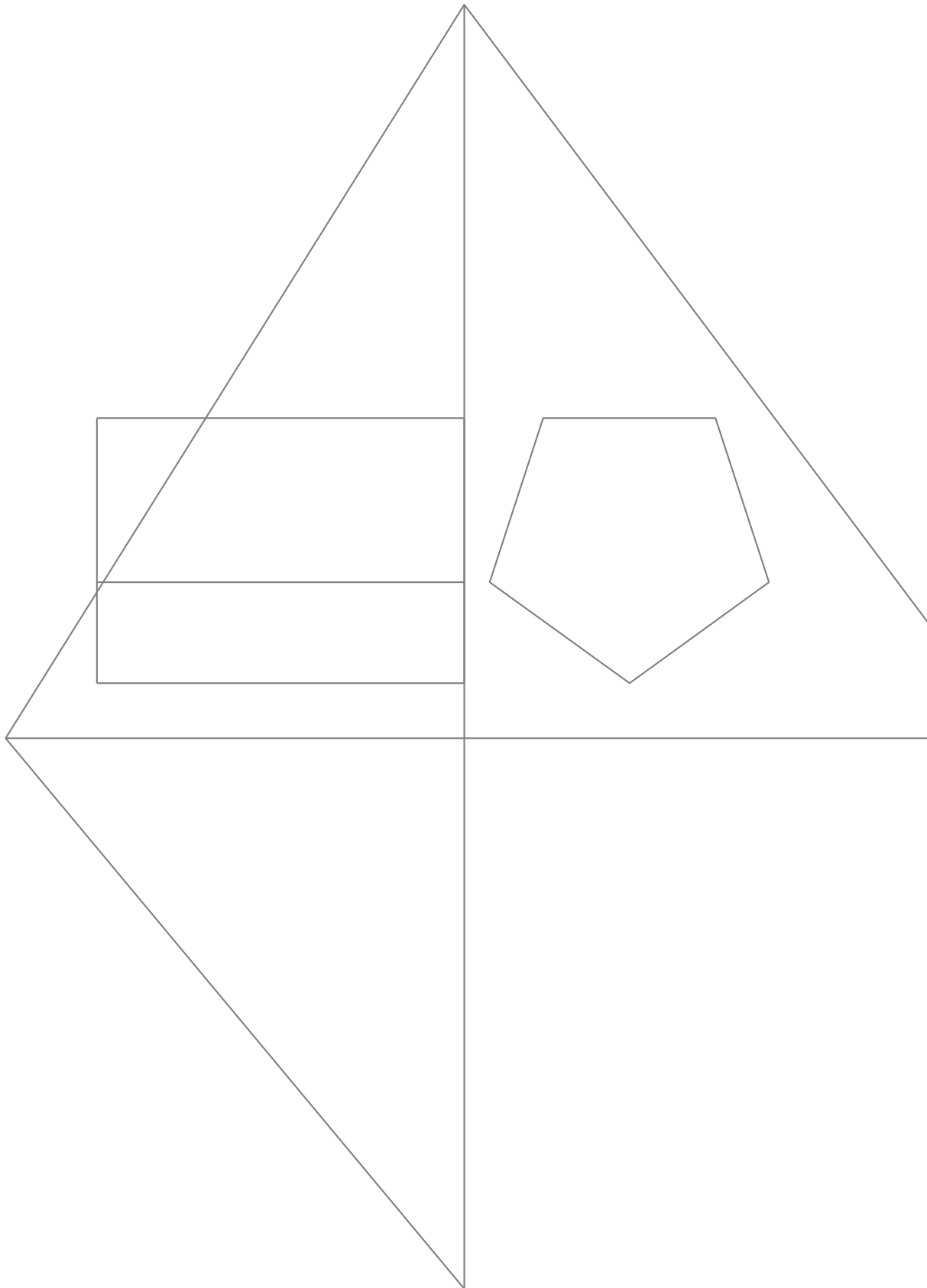


Abbildung 3.31: Prismenschnitt in zugeordneten Normalrissen

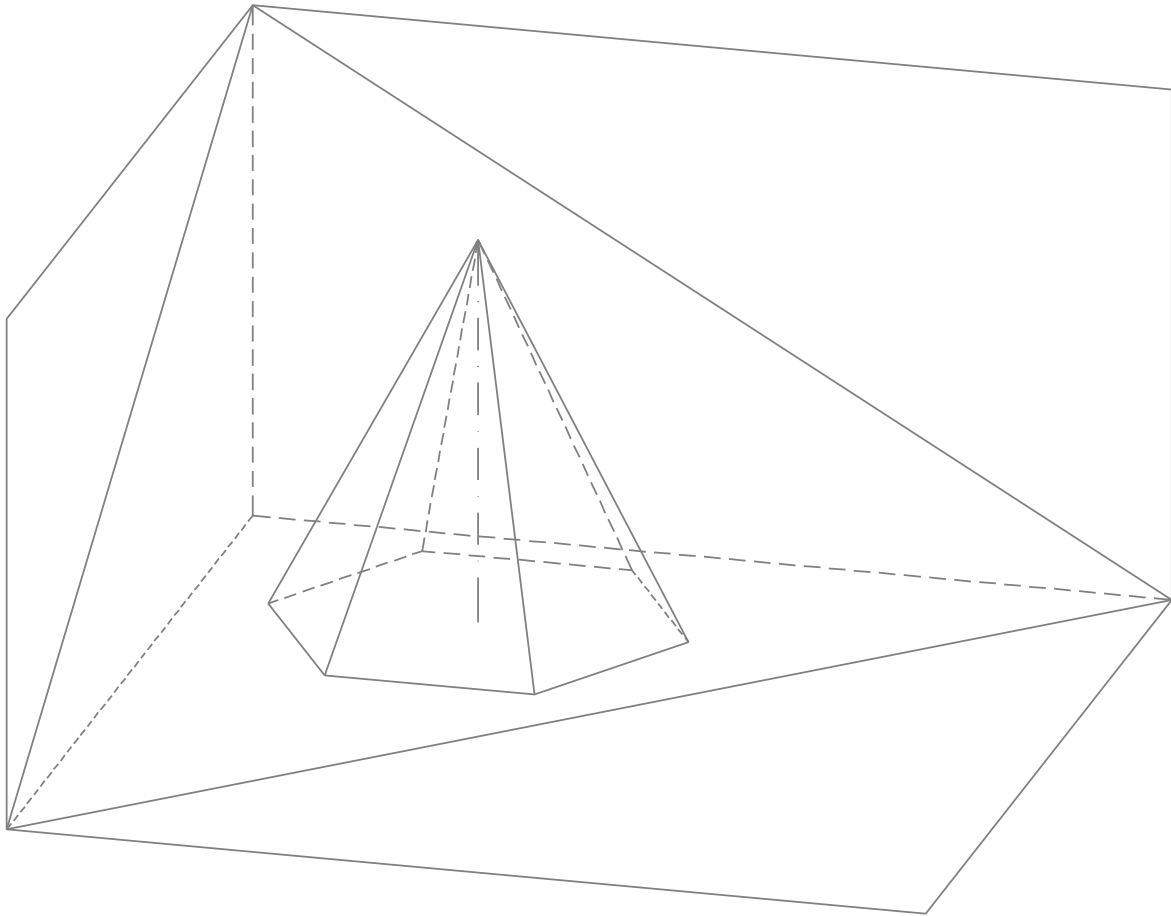


Abbildung 3.33: Pyramidenschnitt in Axonometrie

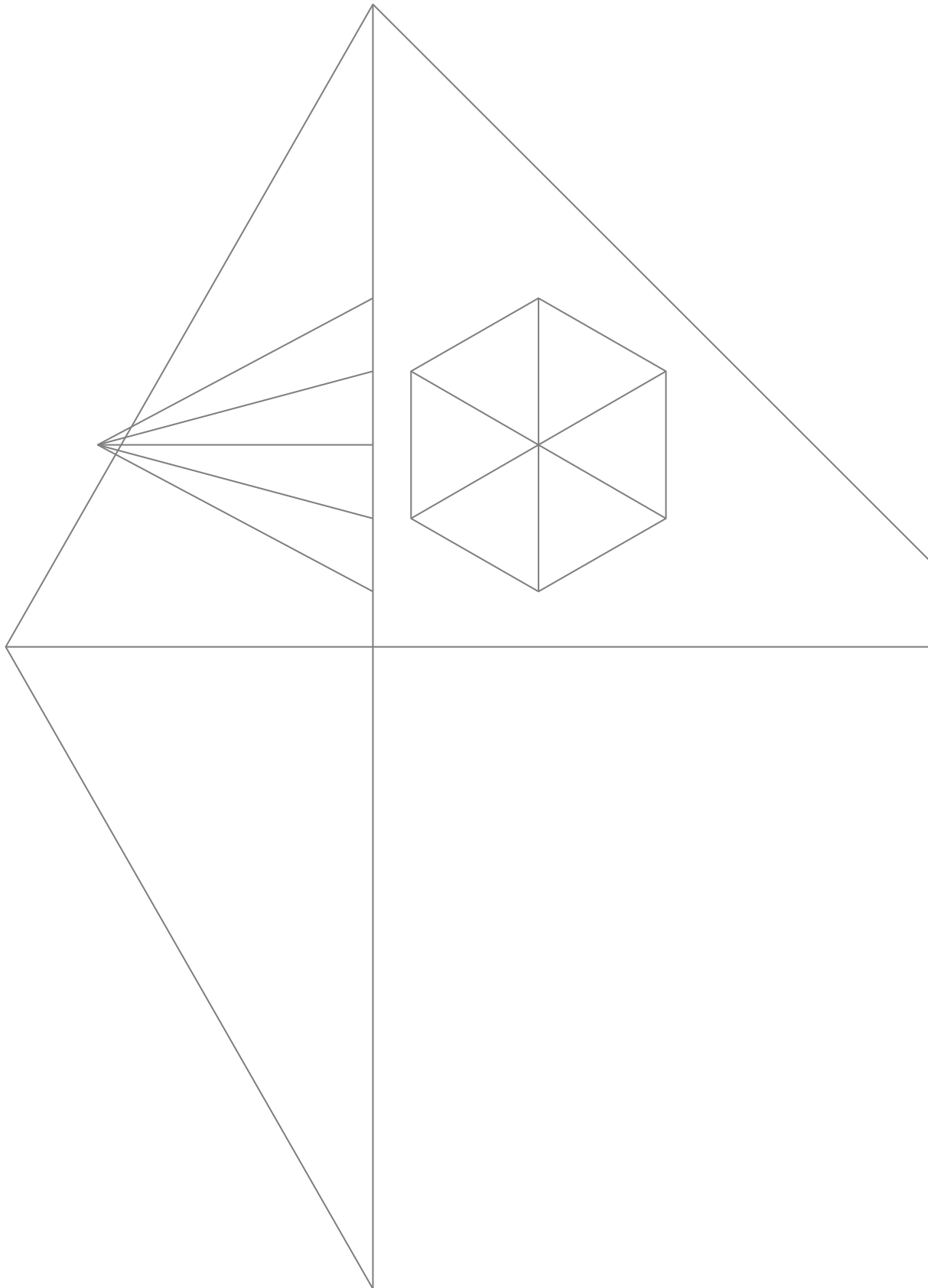


Abbildung 3.34: Pyramidenschnitt in zugeordneten Normalrissen

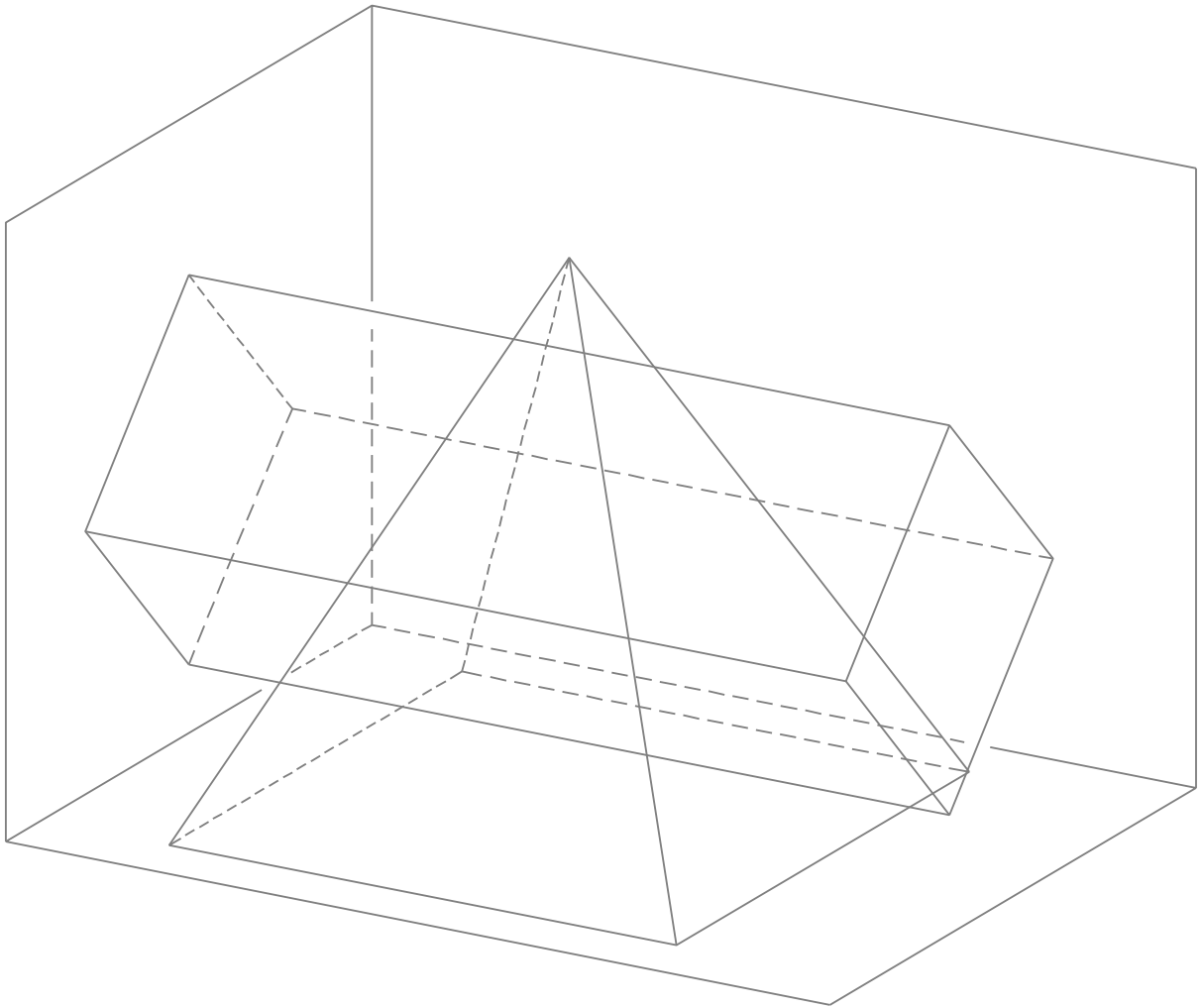


Abbildung 3.38: Durchdringung Prisma-Pyramide in Axonometrie



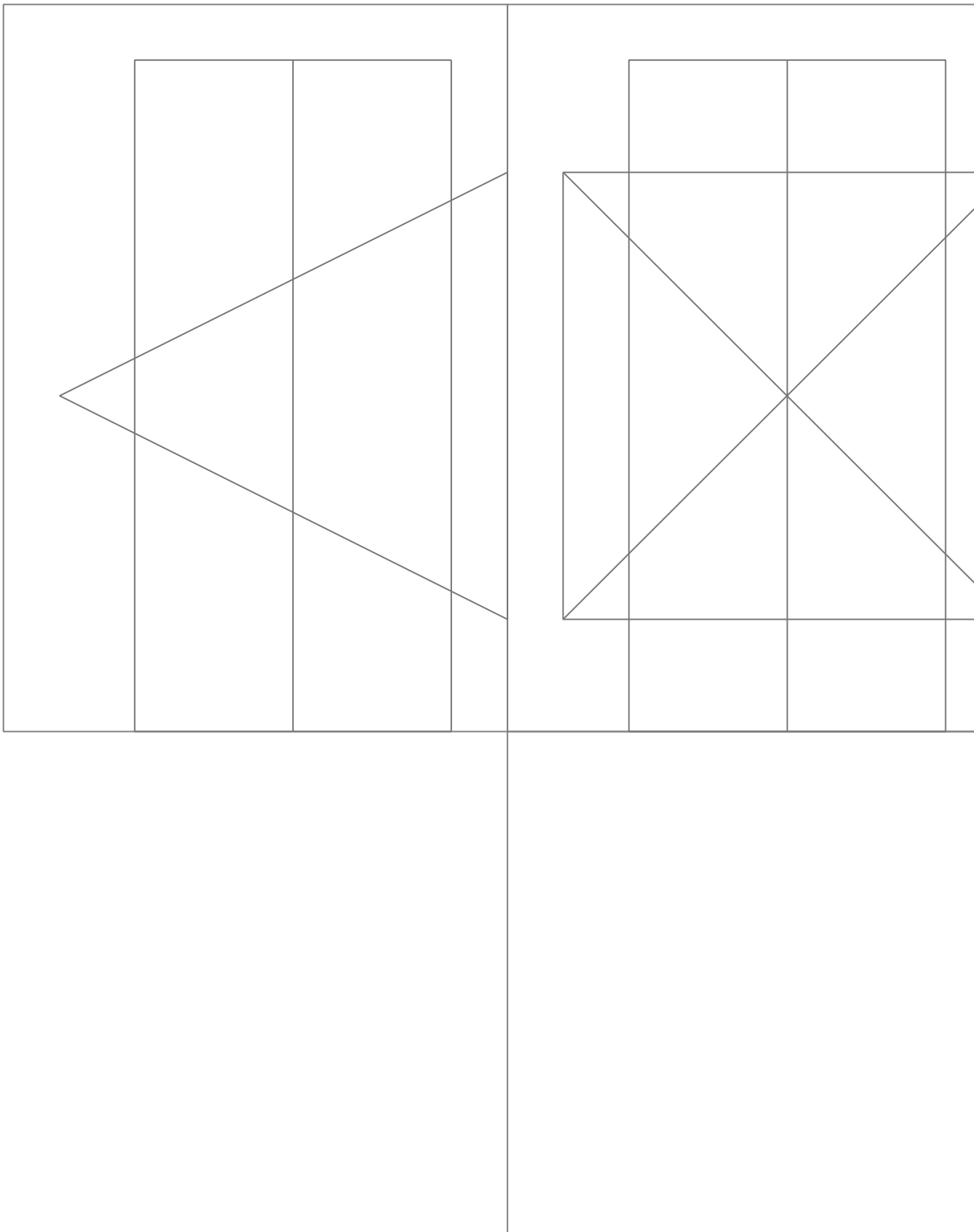


Abbildung 3.39: Durchdringung Prisma-Pyramide in zugeordneten Normalrissen

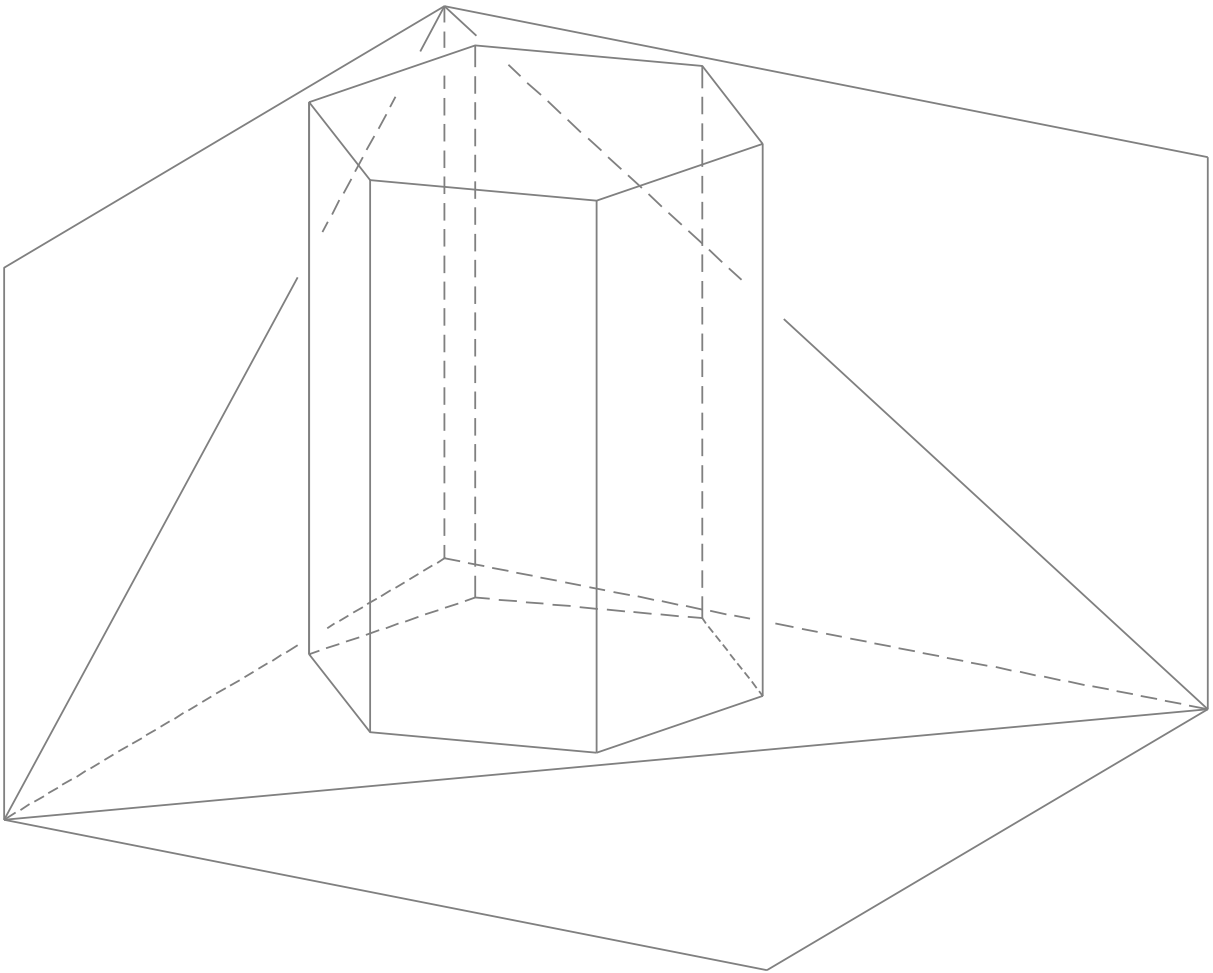


Abbildung 3.40: Prismenschnitt in Axonometrie

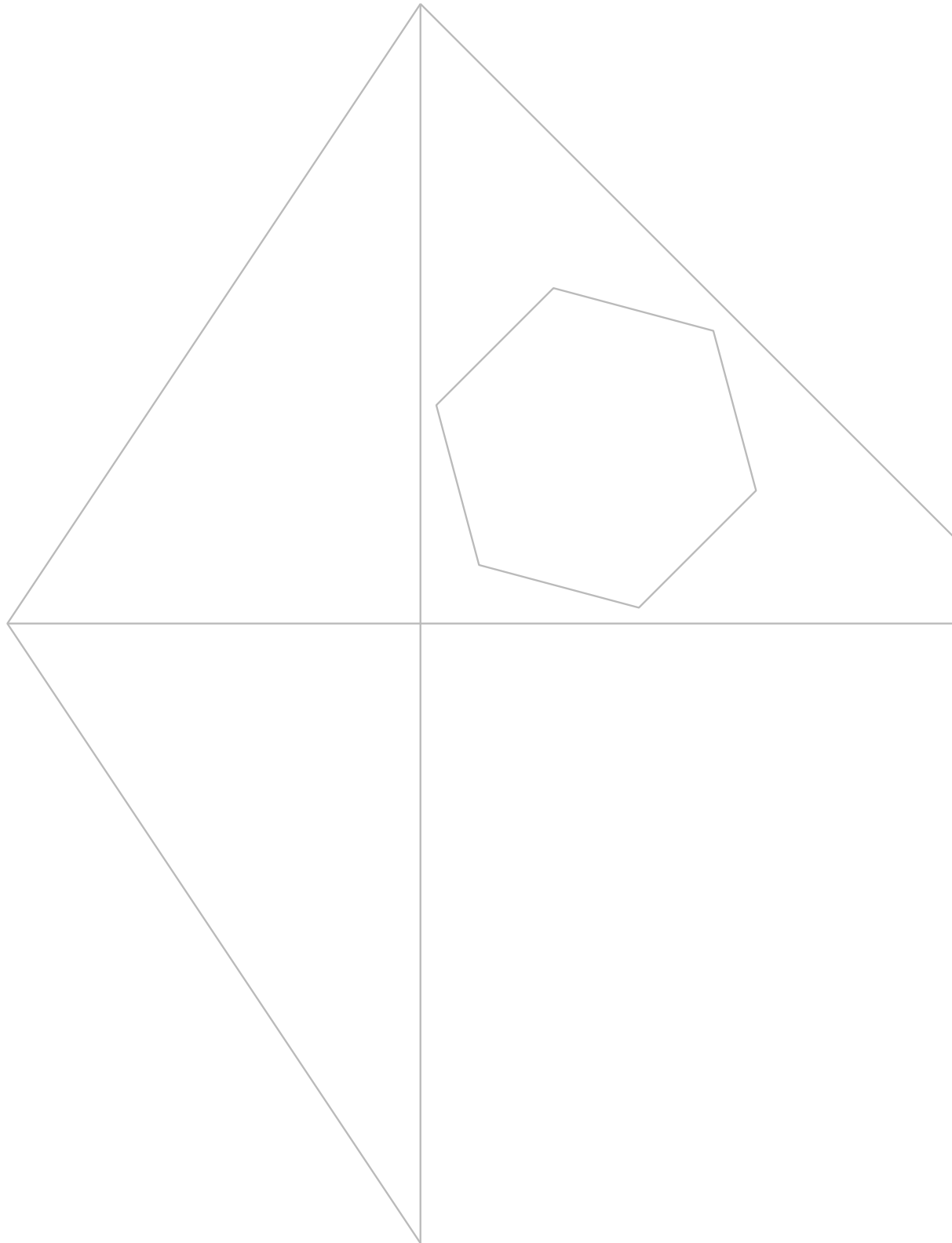


Abbildung 3.41: Prismenschnitt in zugeordneten Normalrissen

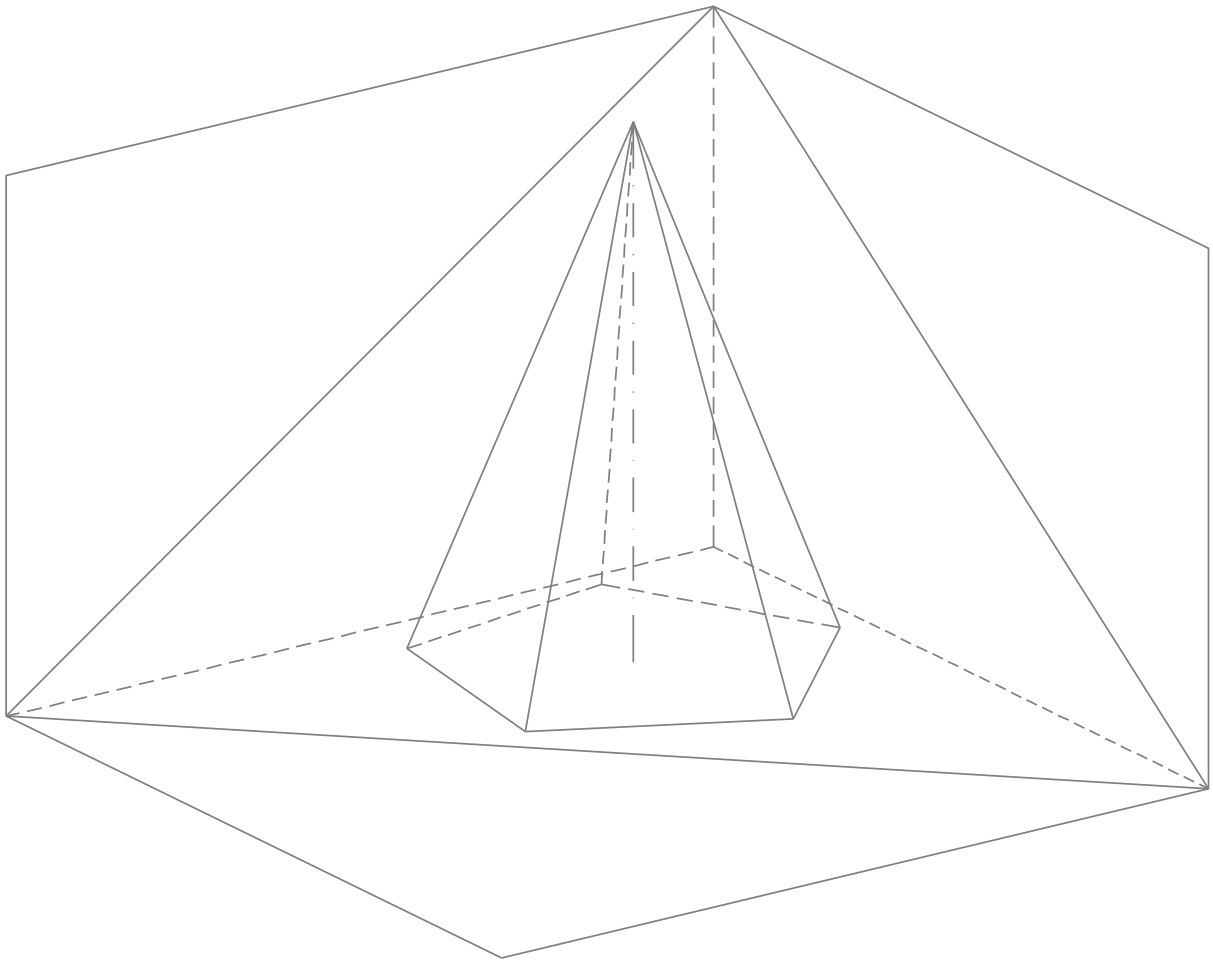


Abbildung 3.42: Pyramidenschnitt in Axonometrie

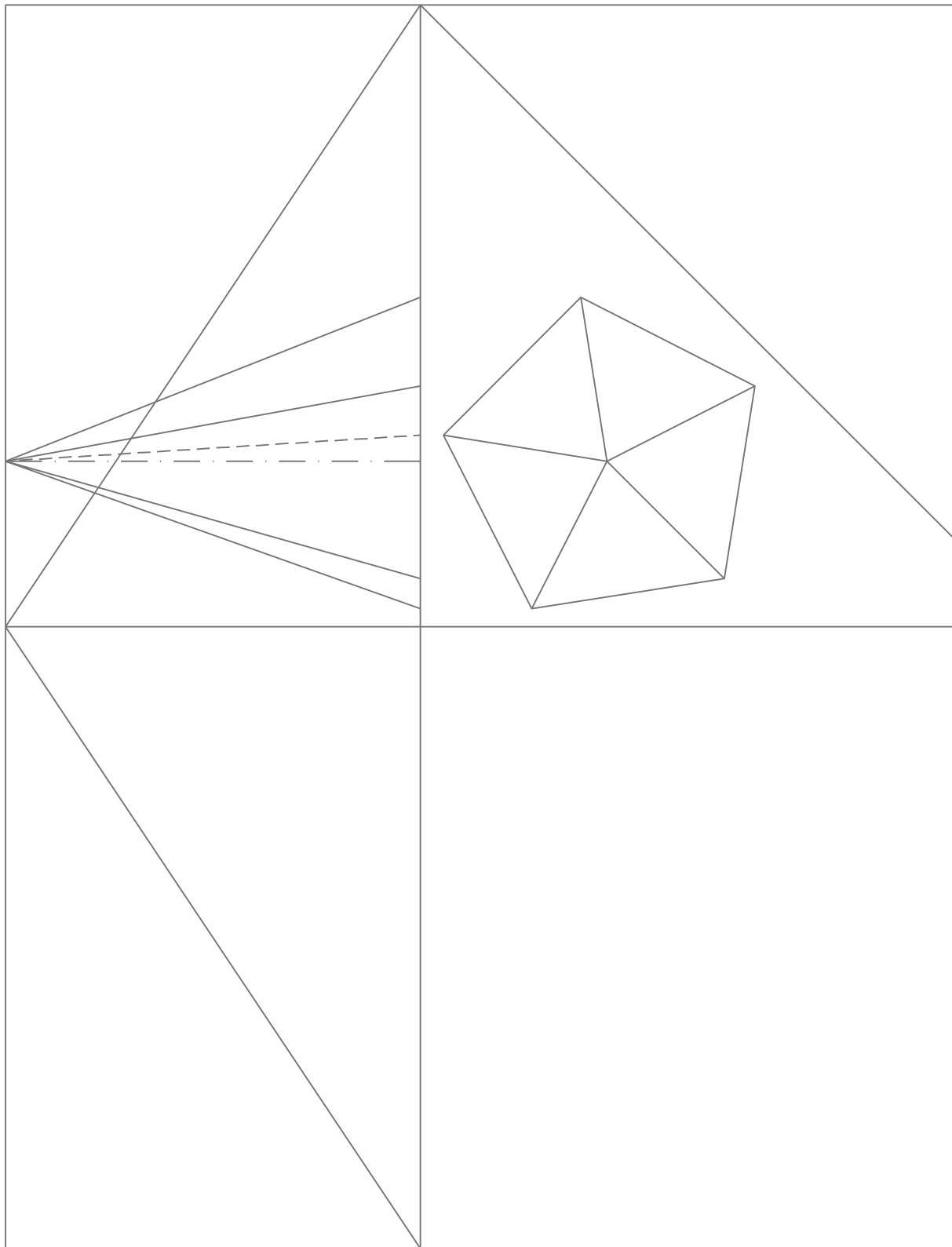


Abbildung 3.43: Pyramidenschnitt in zugeordneten Normalrissen

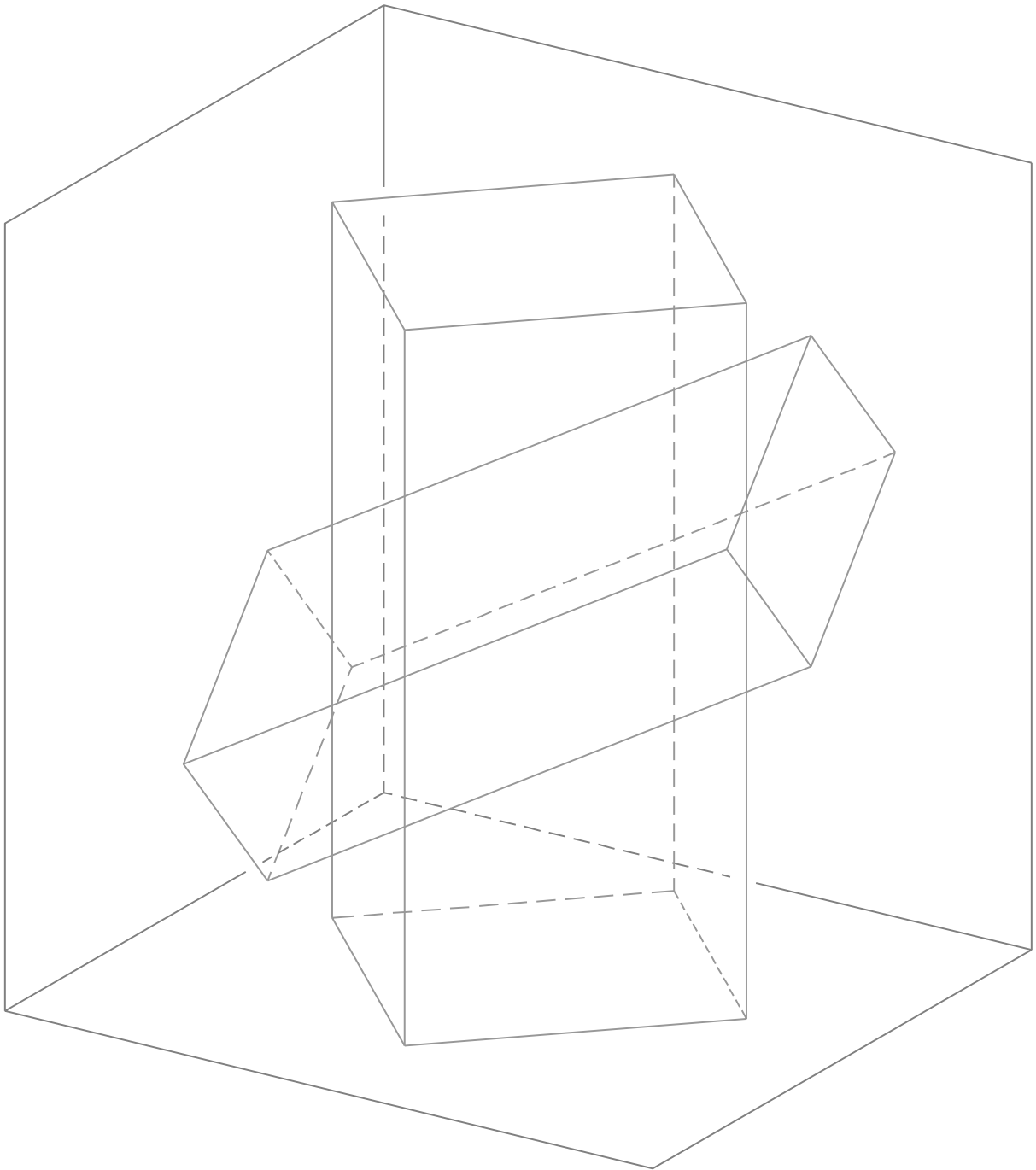


Abbildung 3.44: Durchdringung zweier Prismen in Axonometrie

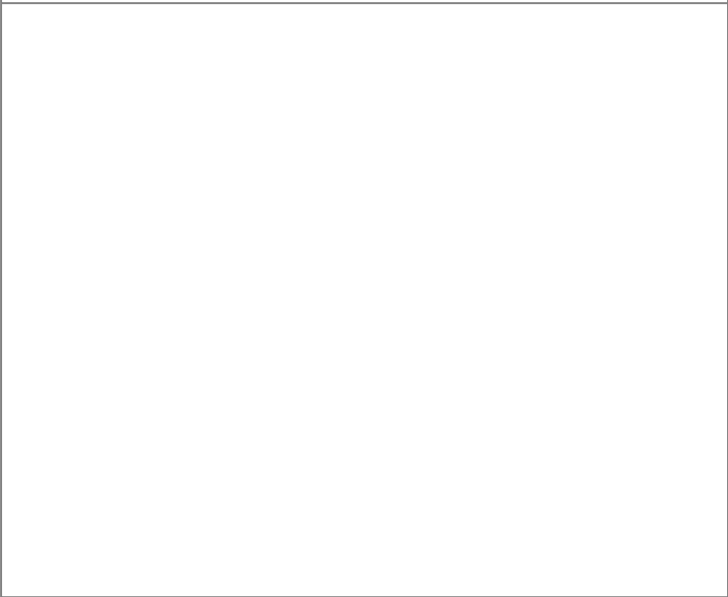
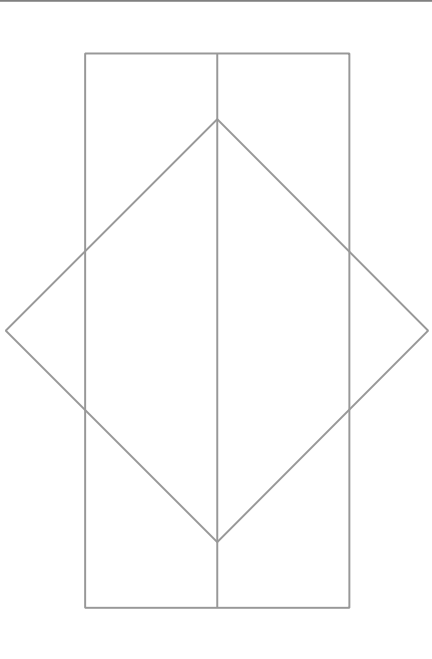
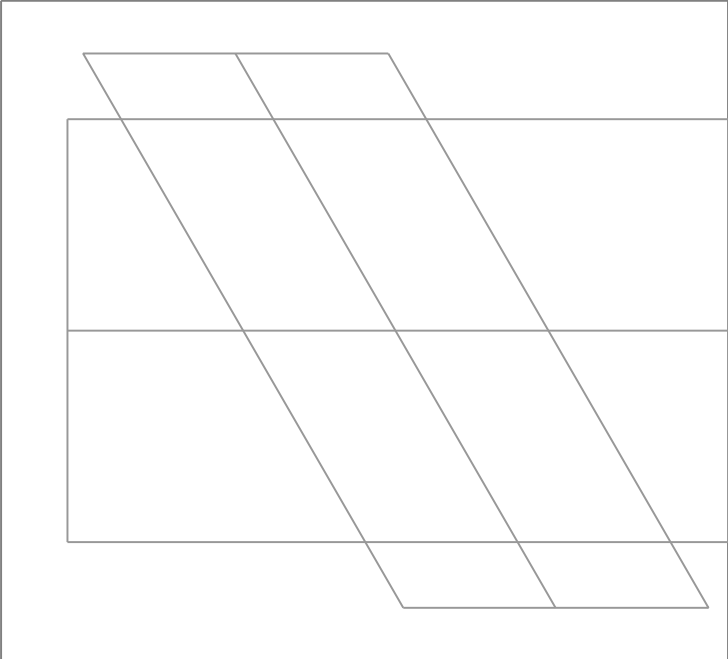


Abbildung 3.45: Durchdringung zweier Prismen in zugeordneten Normalrissen

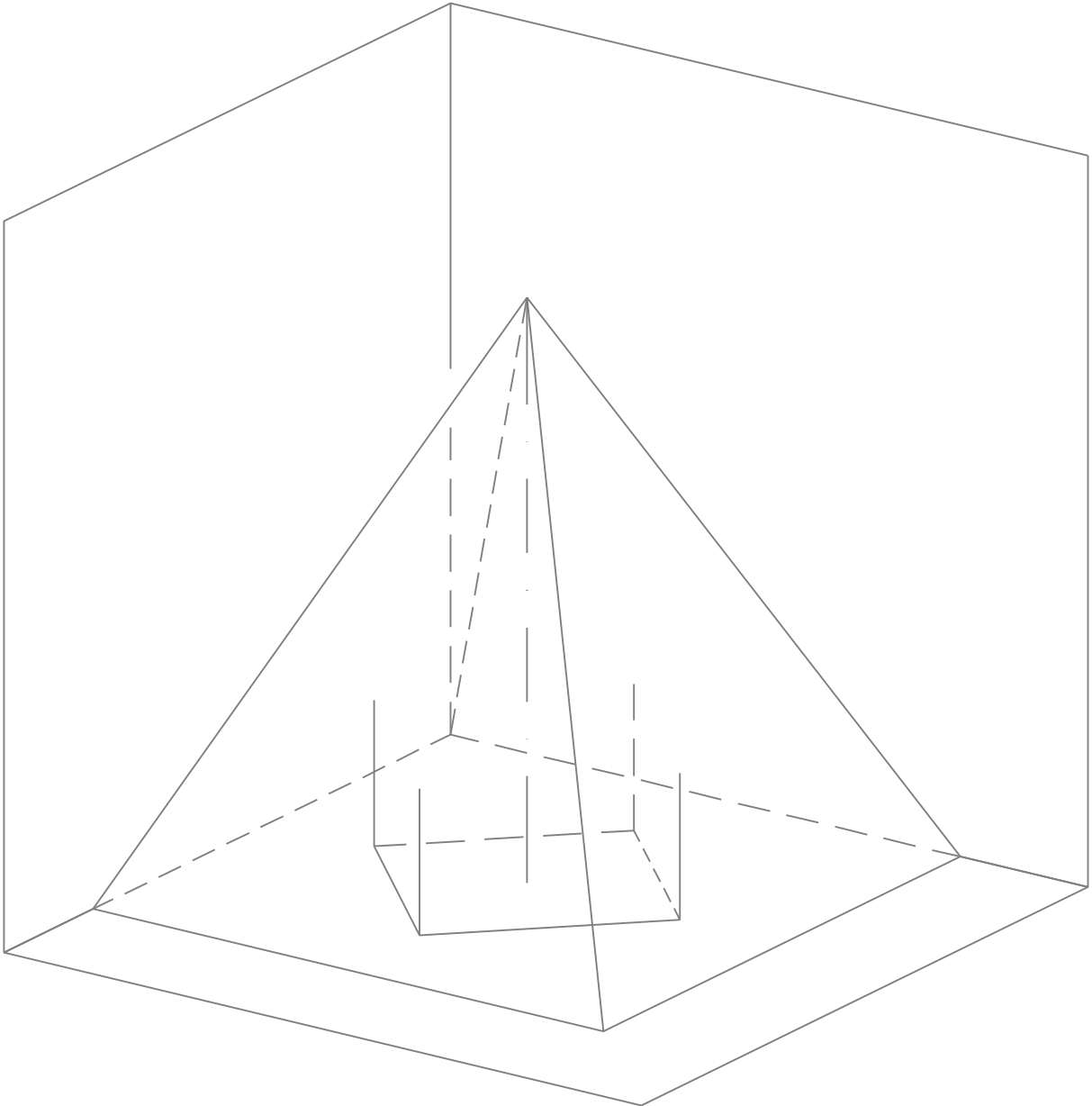


Abbildung 3.46: Dachverschneidung in Axonometrie



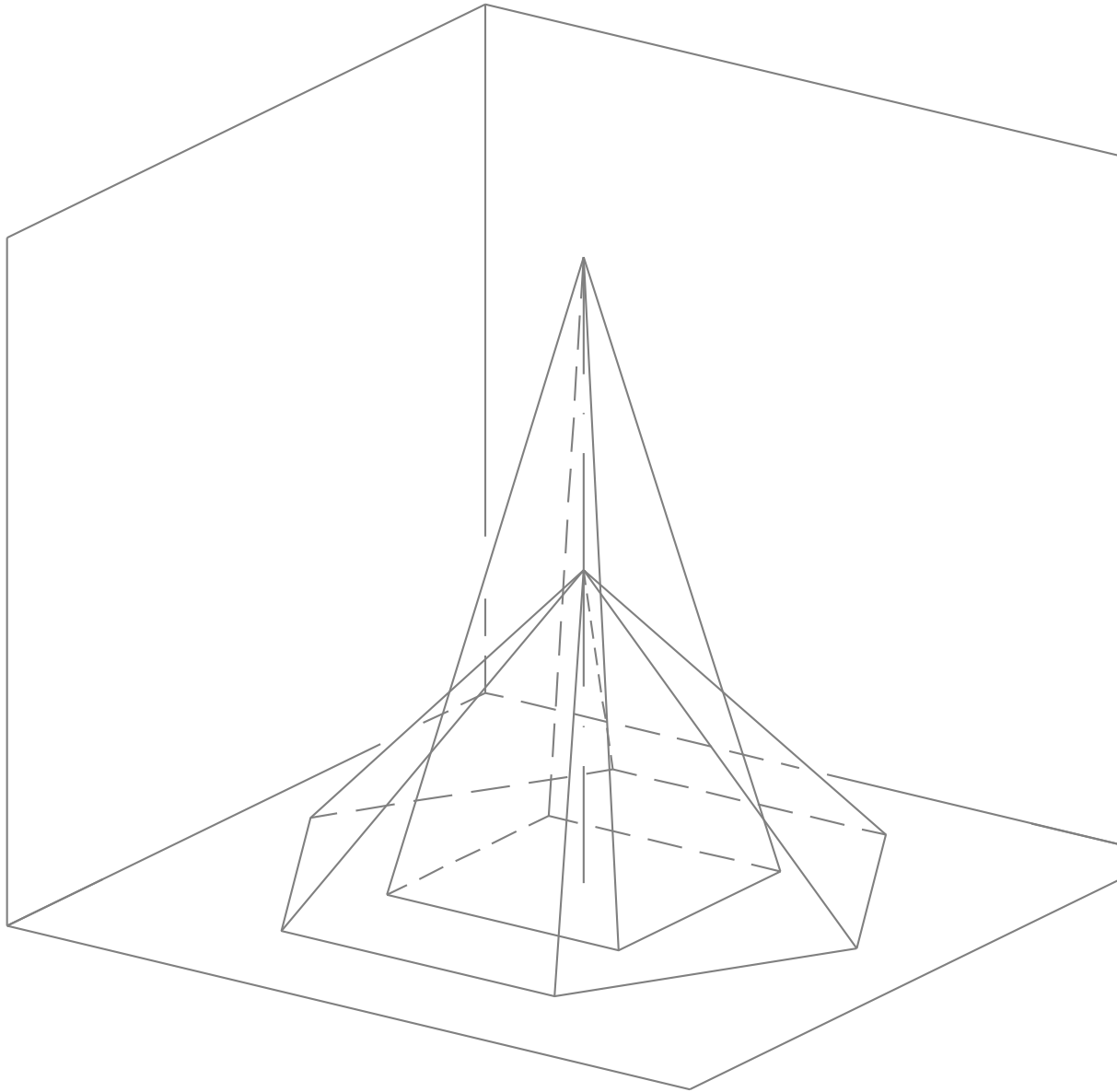


Abbildung 3.47: Dachverschnitt in Axonometrie

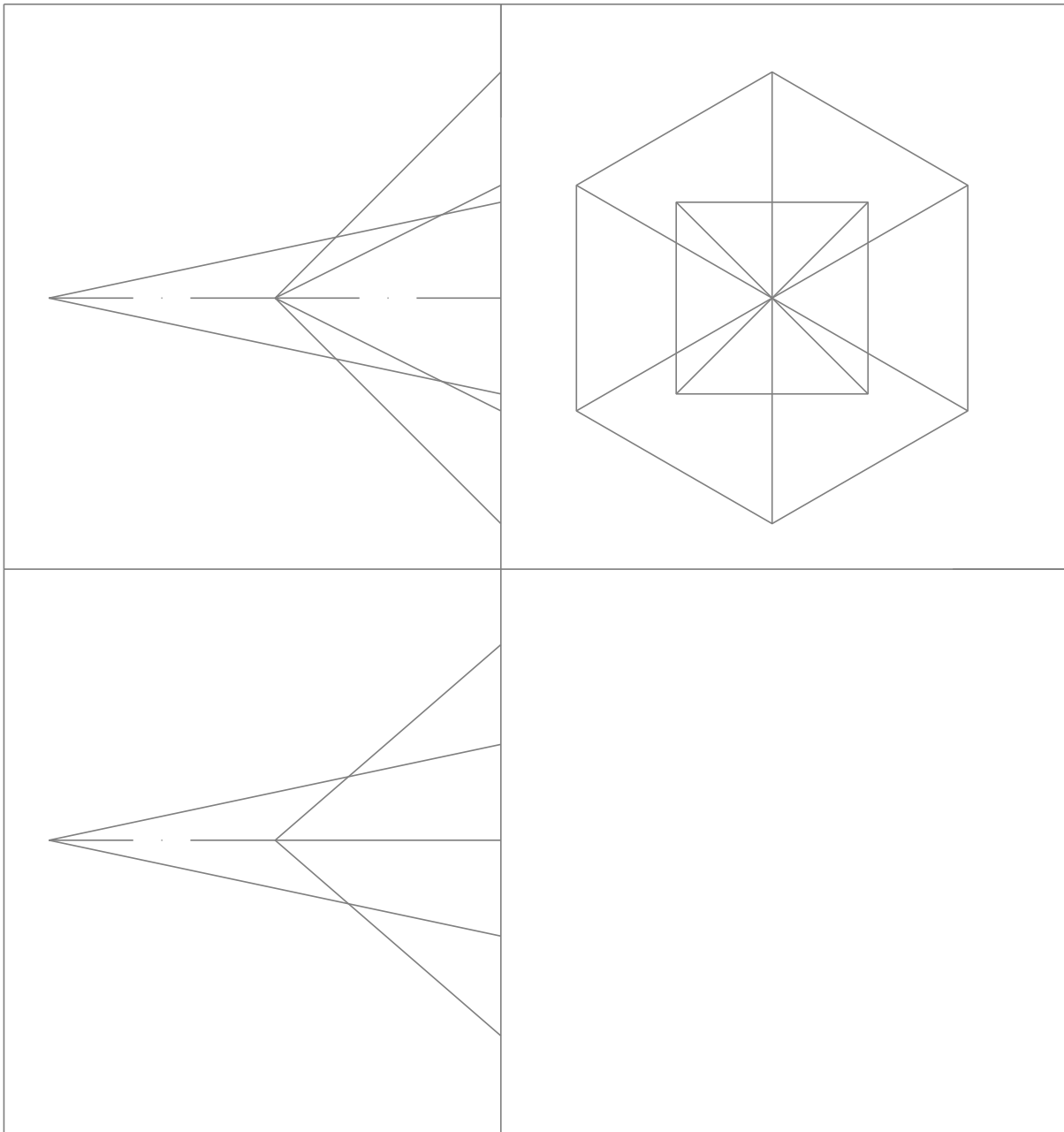


Abbildung 3.48: Dachverschneidung in zugeordneten Normalrissen

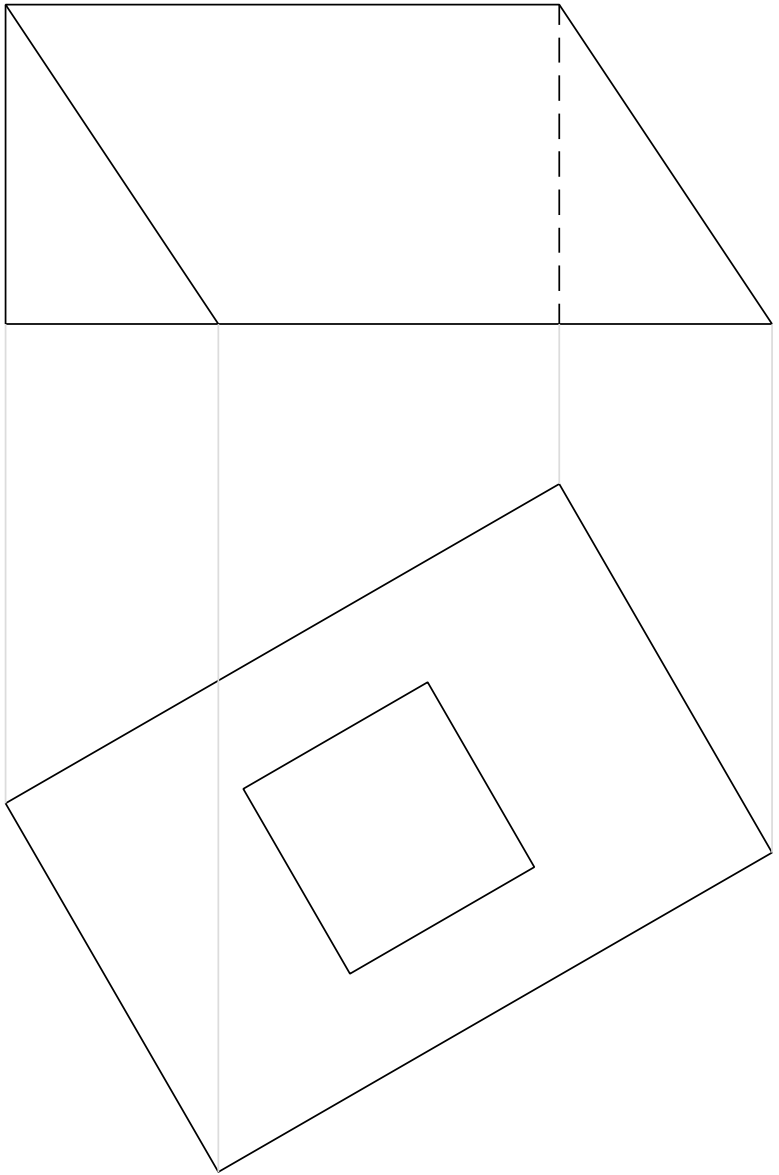


Abbildung 3.52: Schacht

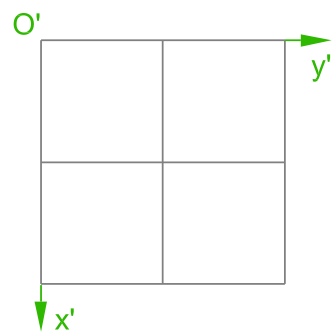
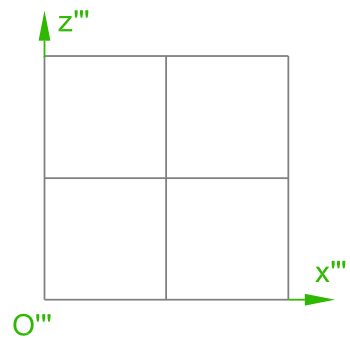
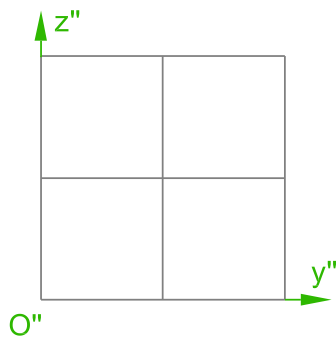
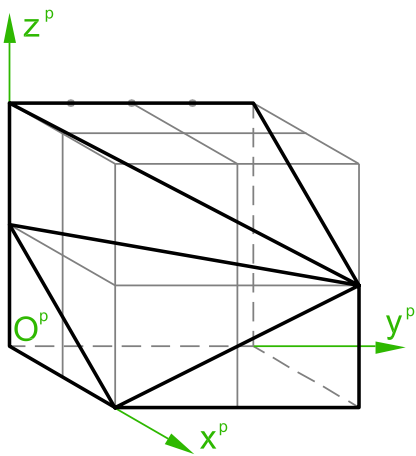
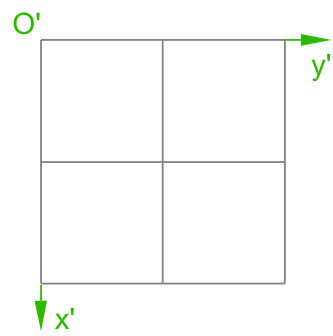
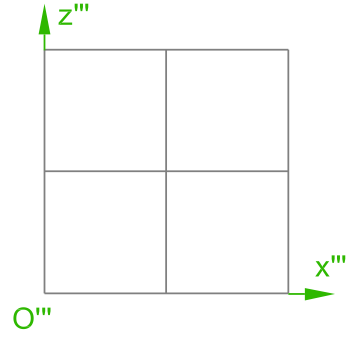
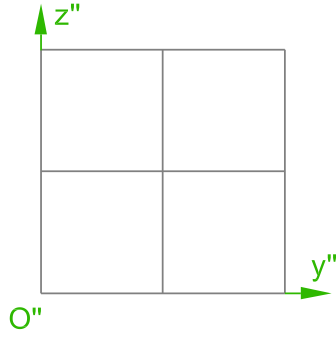
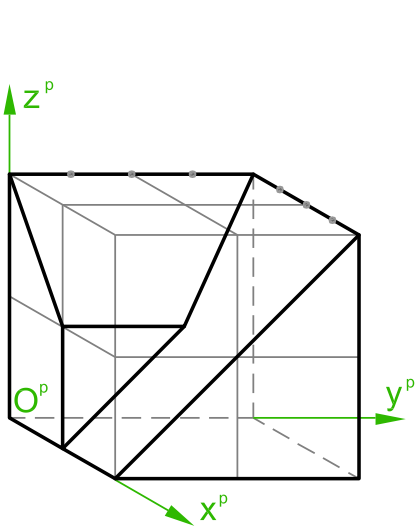


Abbildung 3.54: Fallgeraden an ebenflächigen Objekten

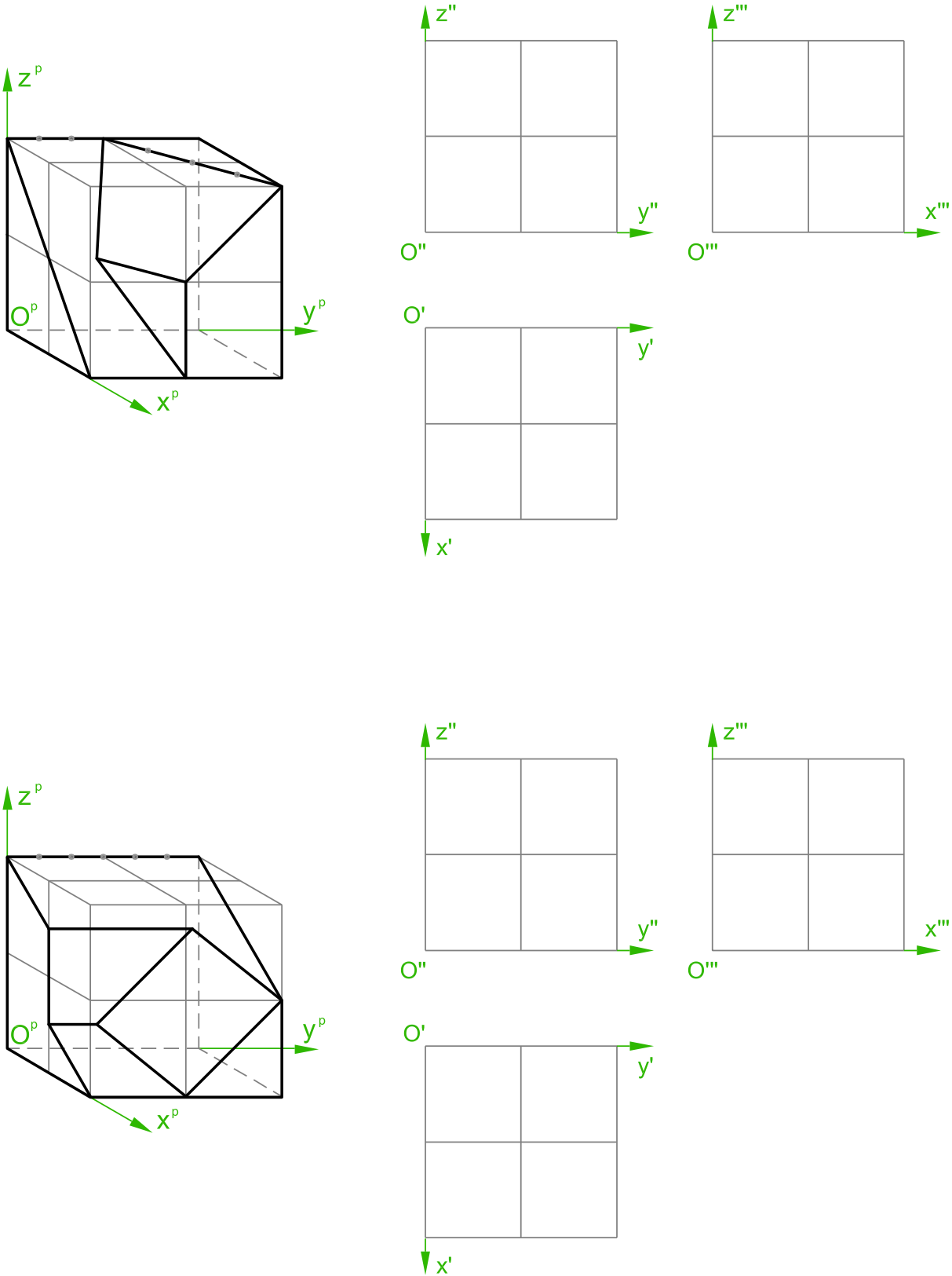


Abbildung 3.55: Fallgeraden an ebenflächigen Objekten

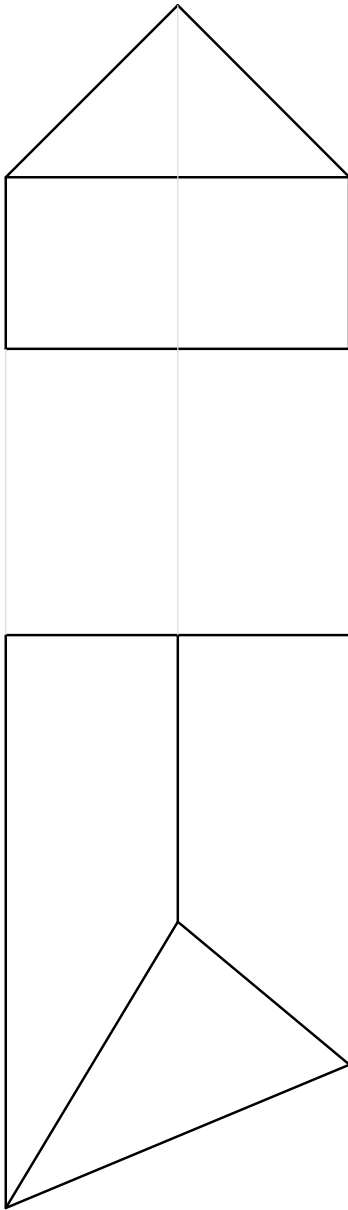


Abbildung 3.57: Wahre Länge einer Strecke

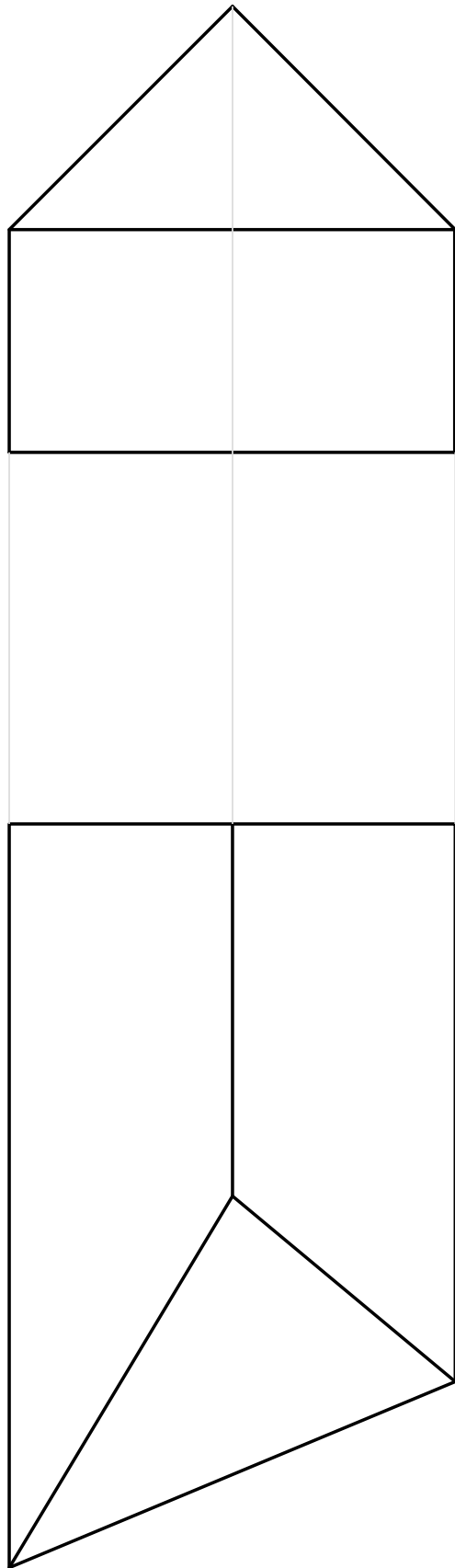


Abbildung 3.60: Wahre Größe einer ebenen Figur durch Paralleldrehen

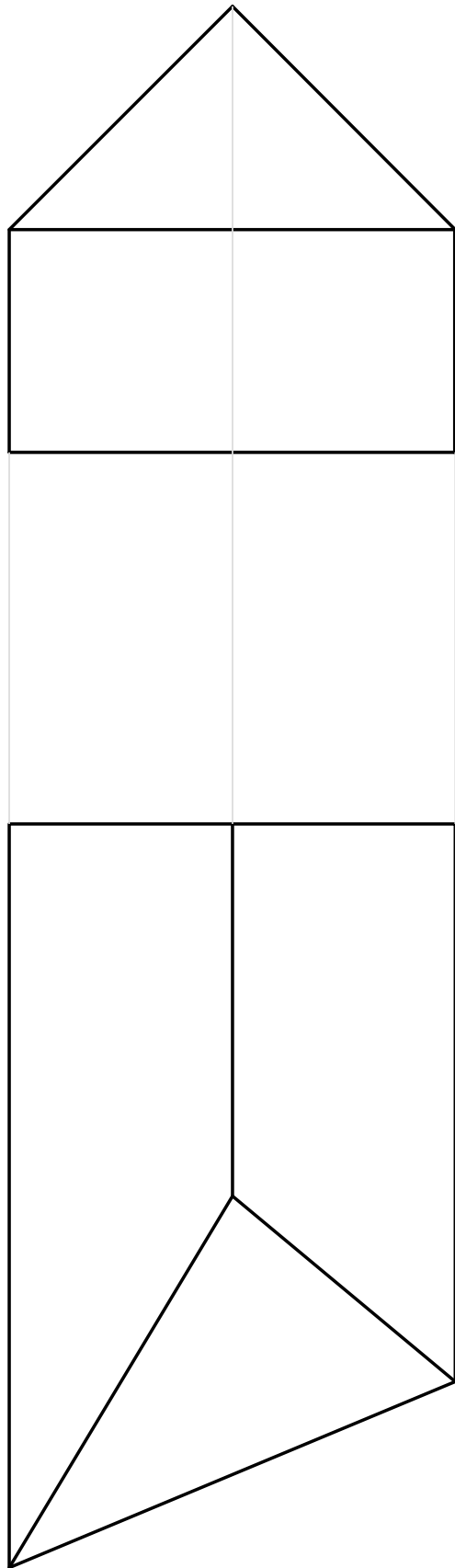


Abbildung 3.61: Wahre Größe einer ebenen Figur durch Seitenriss



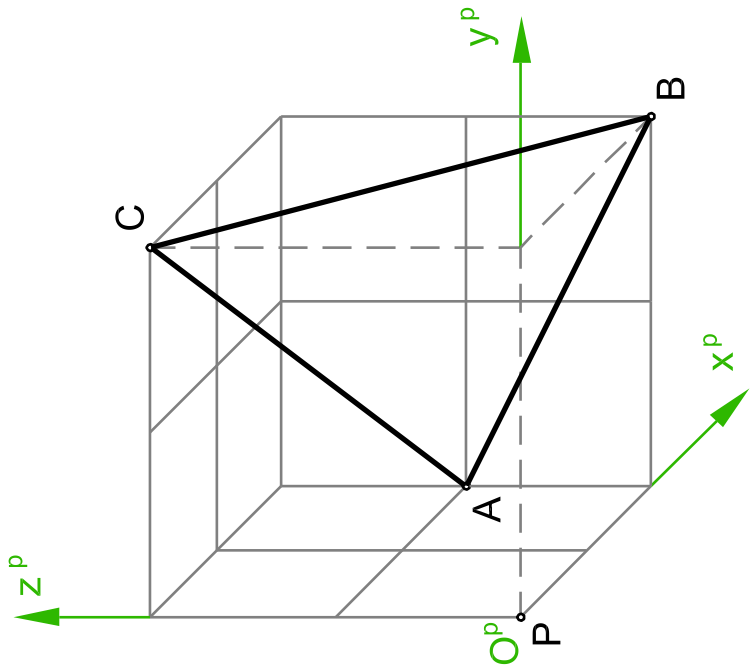
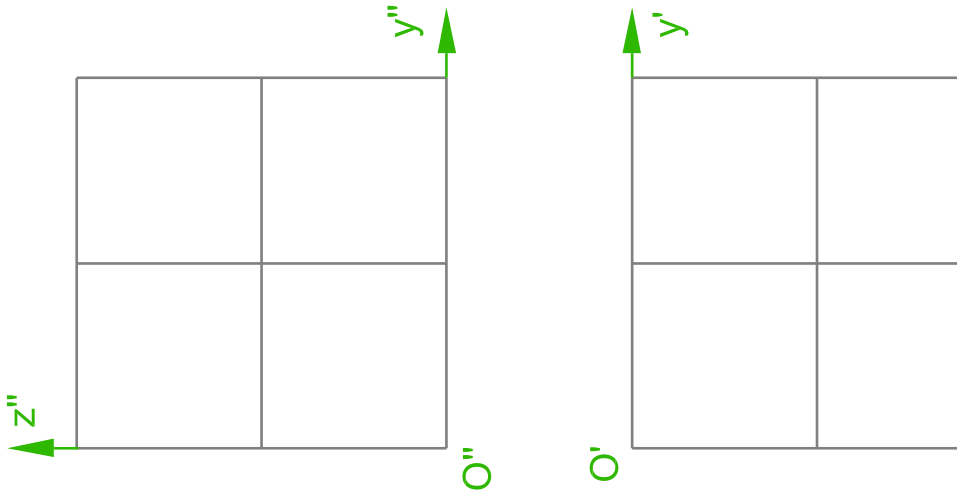


Abbildung 3.64: Abstandsbestimmungen Punkt-Ebene und Punkt-Gerade

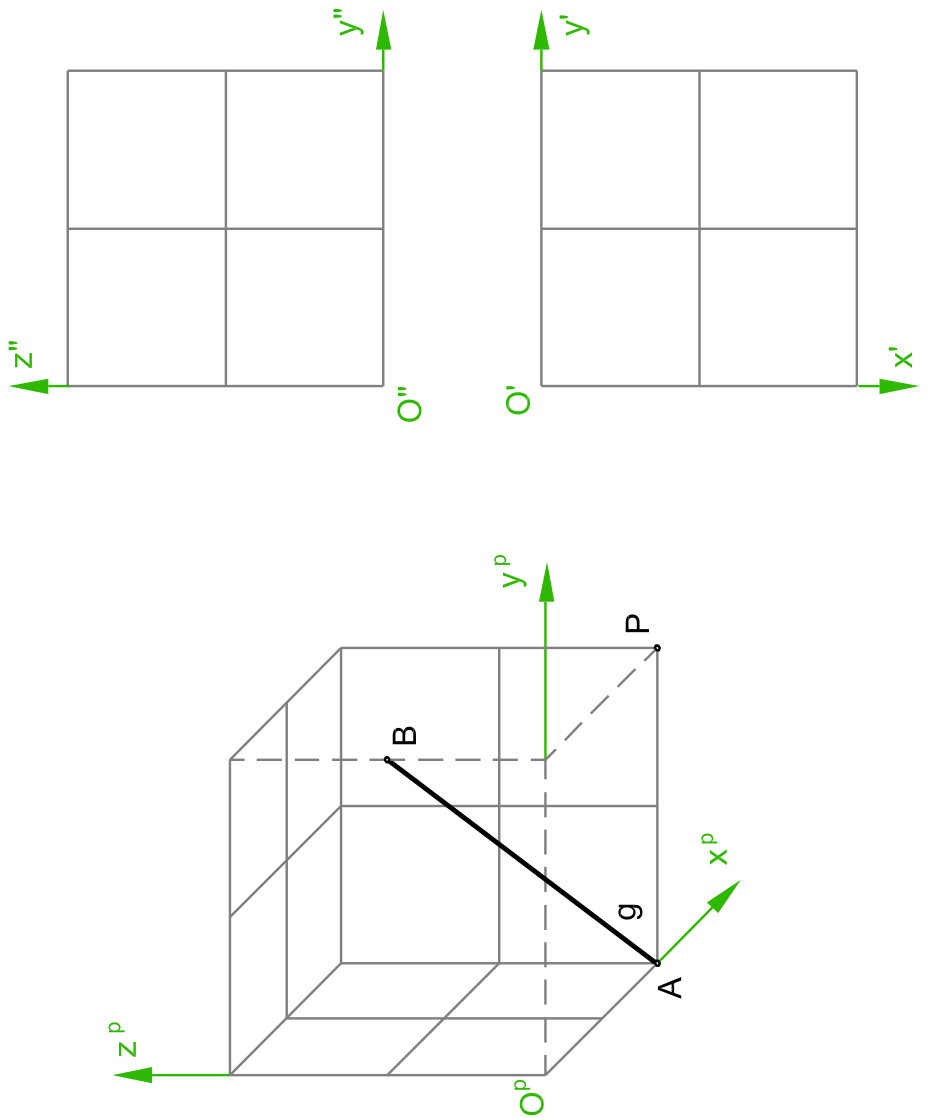


Abbildung 3.65: Abstandsbestimmungen Punkt-Ebene und Punkt-Gerade

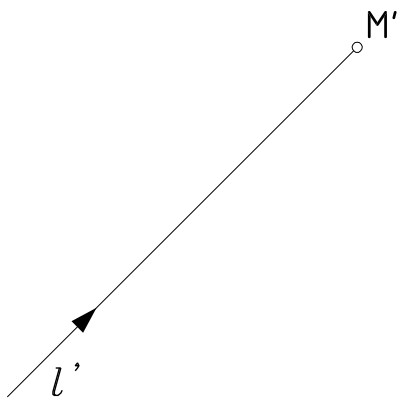
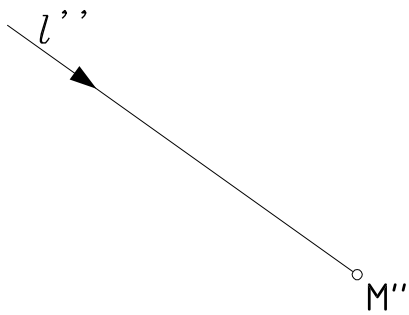


Abbildung 3.66: Sonnenkollektor

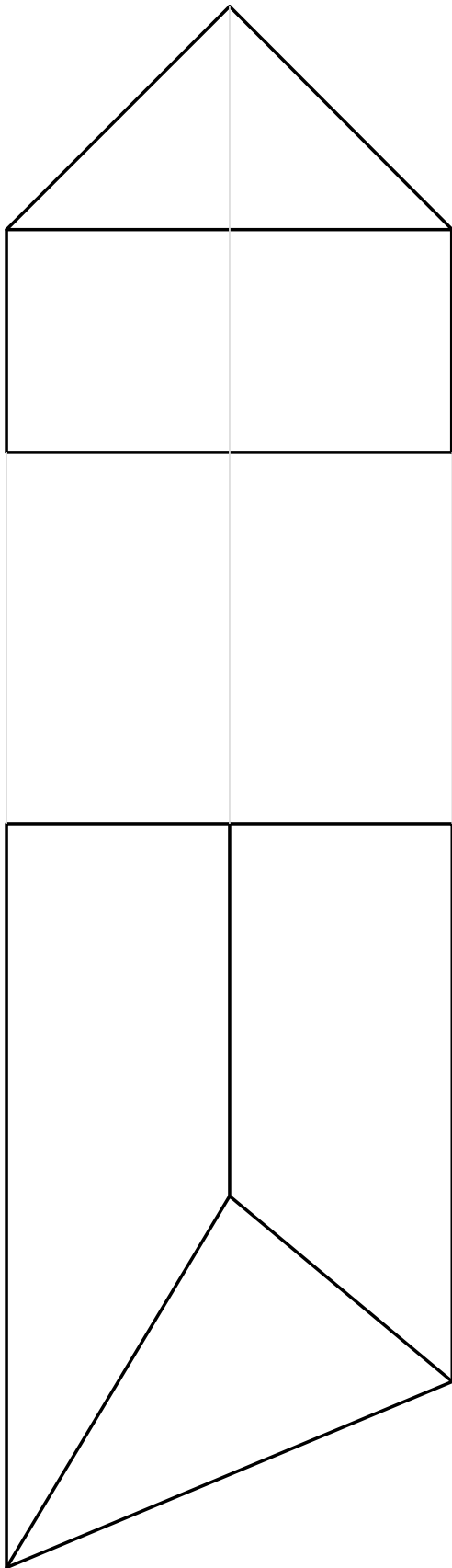


Abbildung 3.71: Winkel Gerade-Ebene

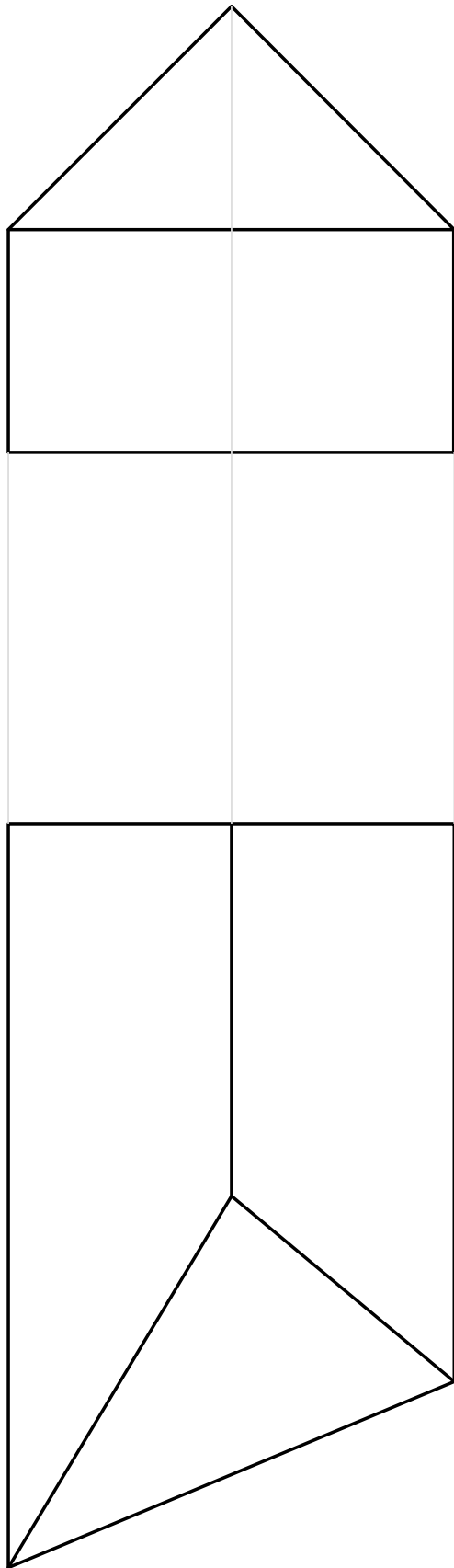


Abbildung 3.73: Winkel zwischen zwei Dachebenen

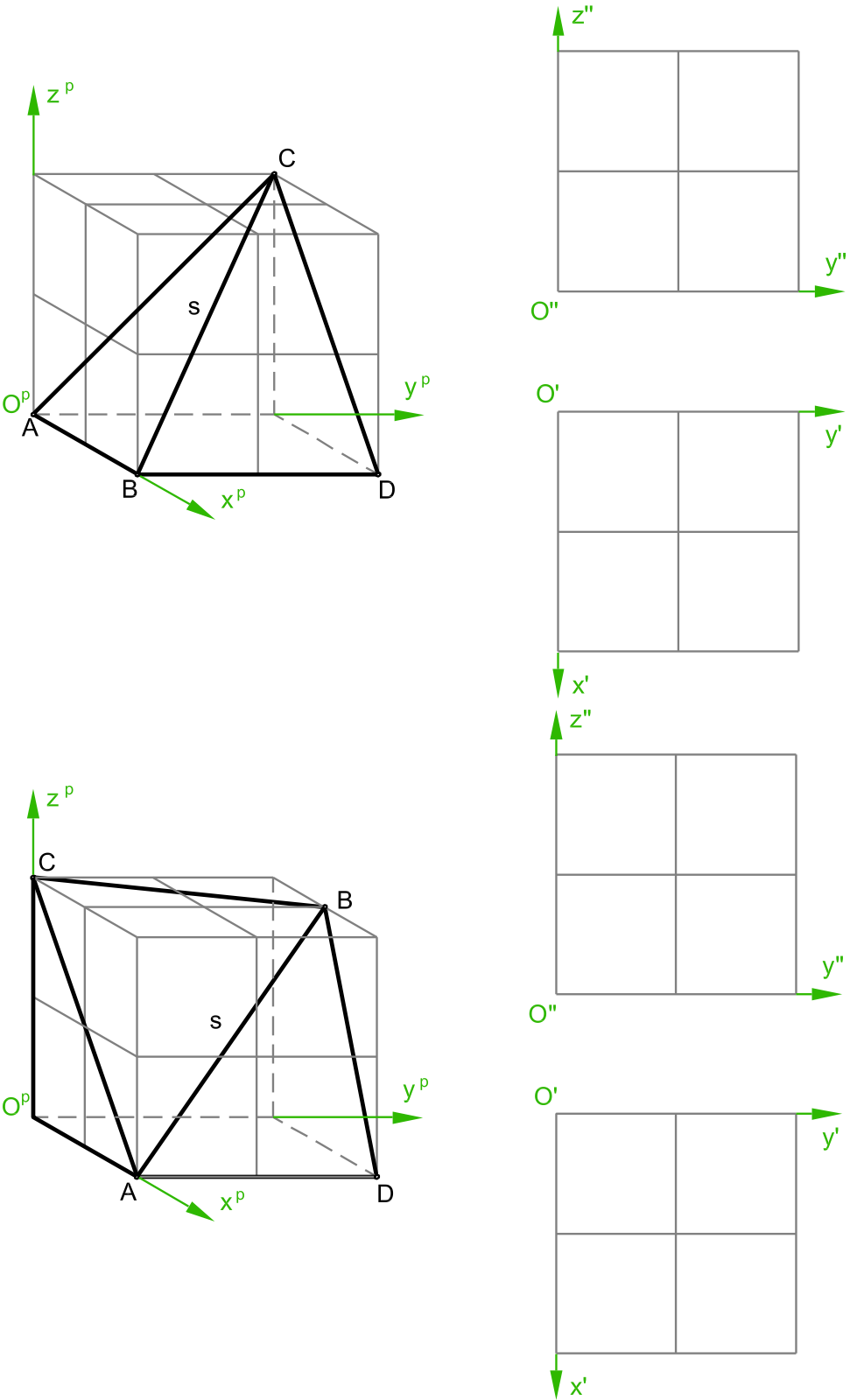


Abbildung 3.74: Winkel zweier Ebenen

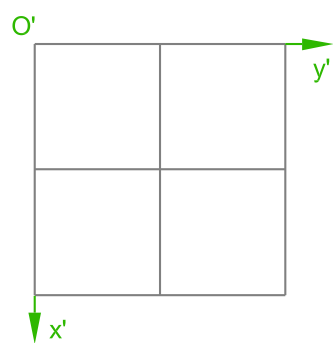
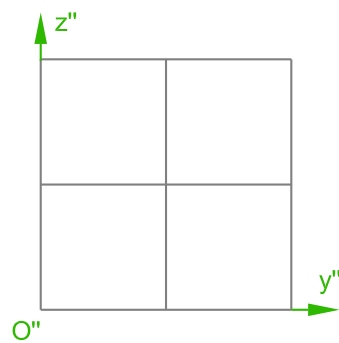
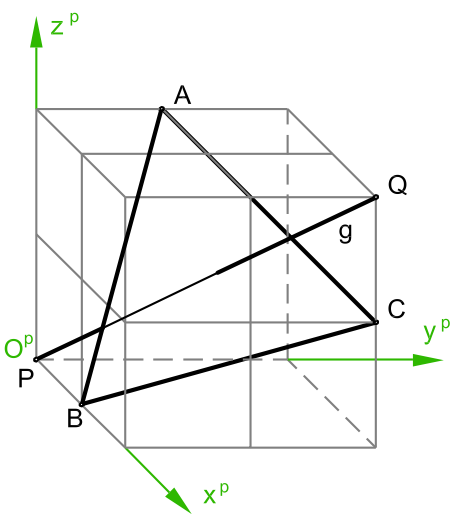
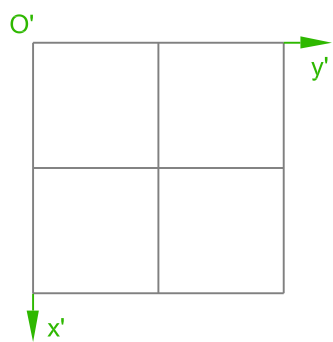
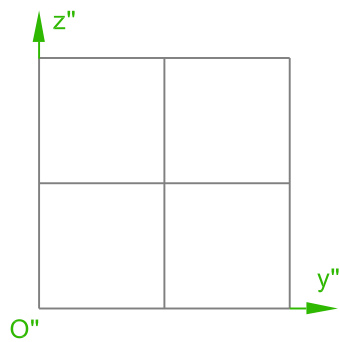
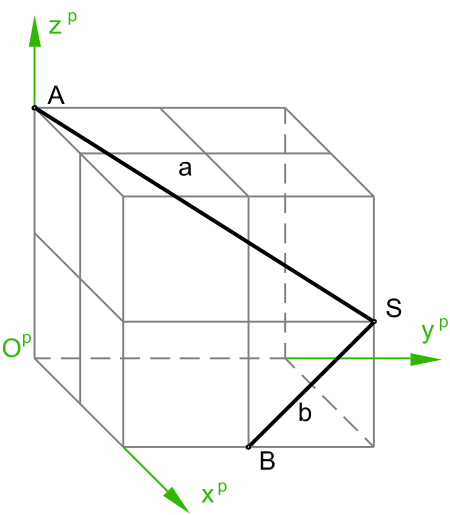
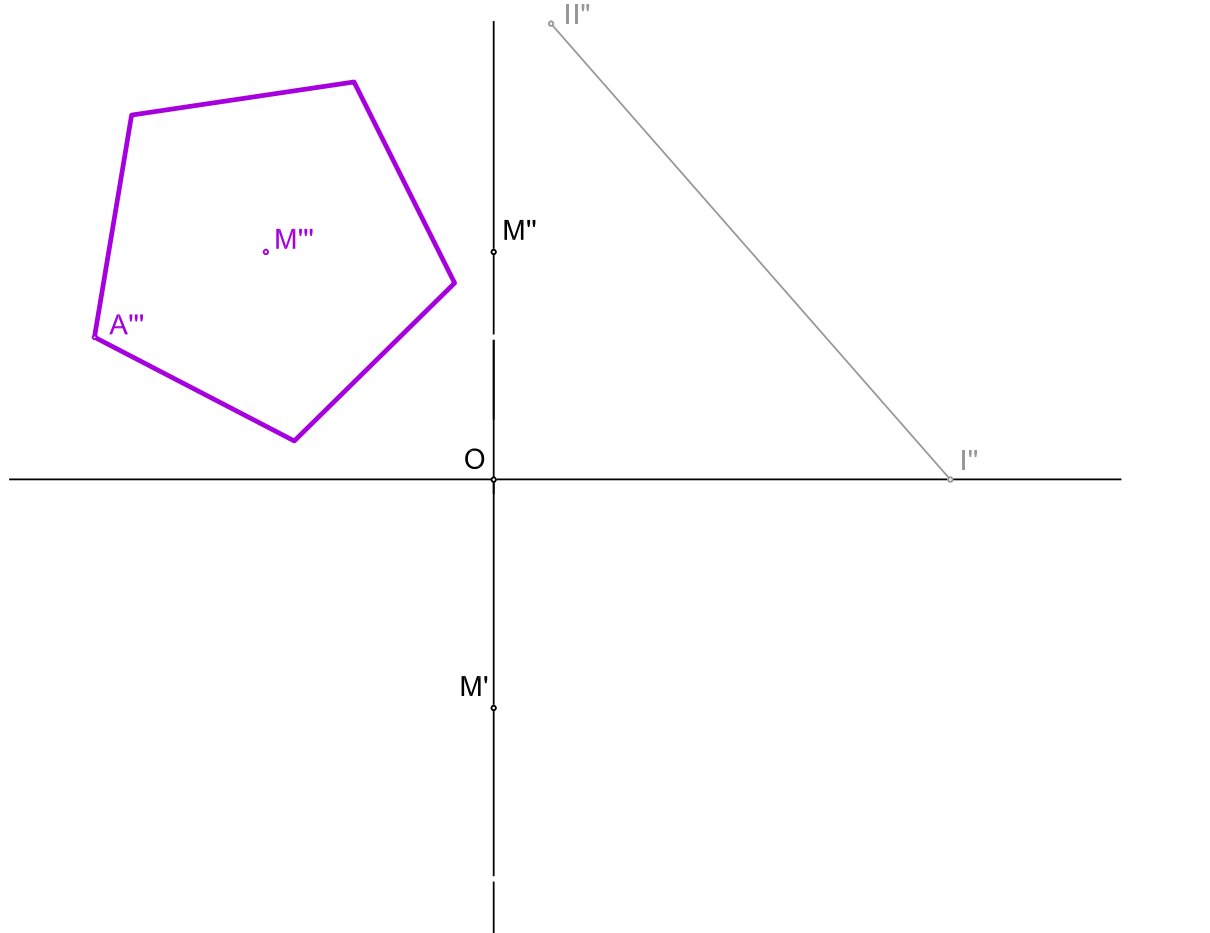


Abbildung 3.75: Winkel zweier Geraden – Winkel Gerade-Ebene



$A^v$

Abbildung 3.77: Abwicklung Prisma



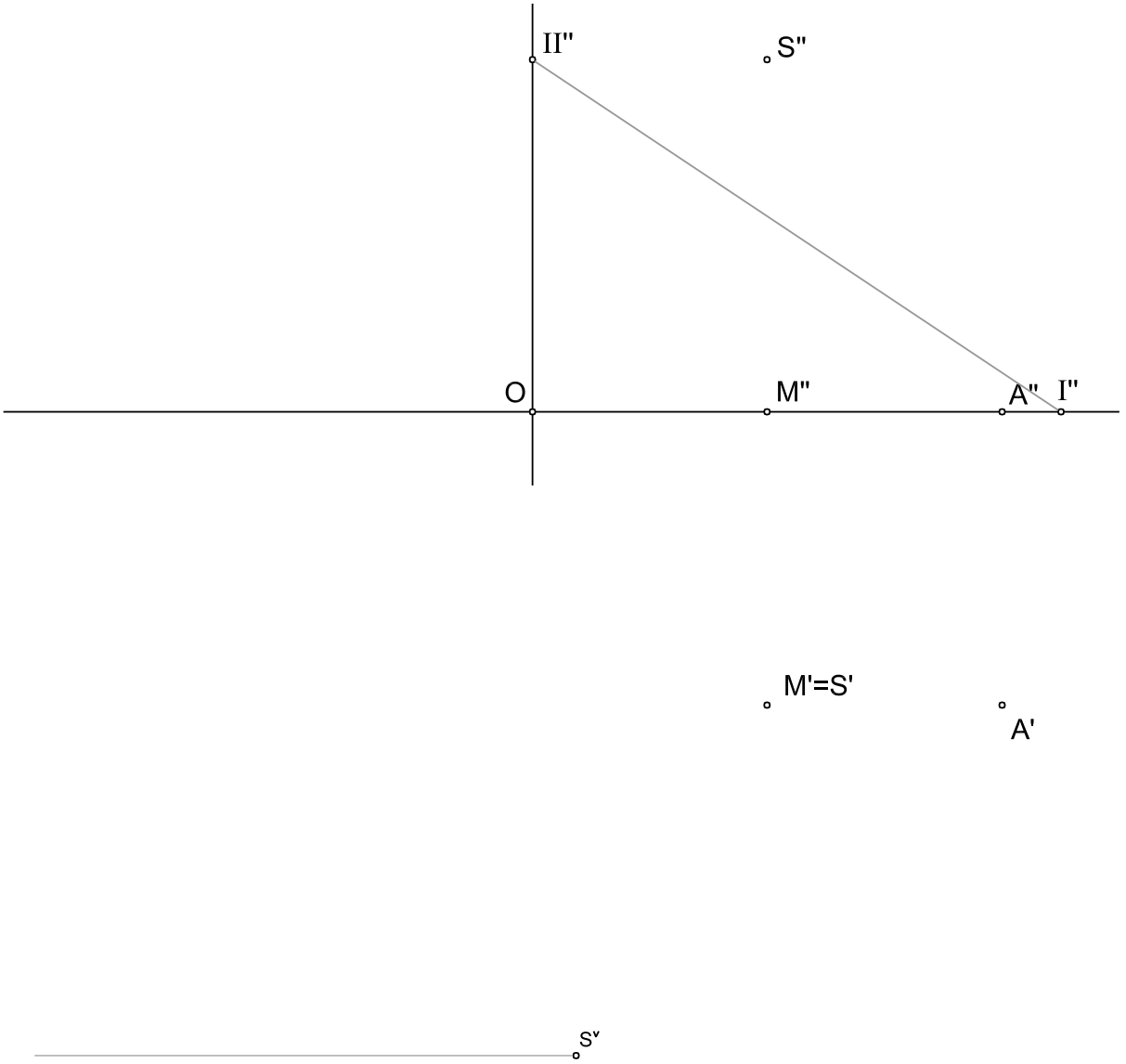


Abbildung 3.78: Abwicklung Pyramide

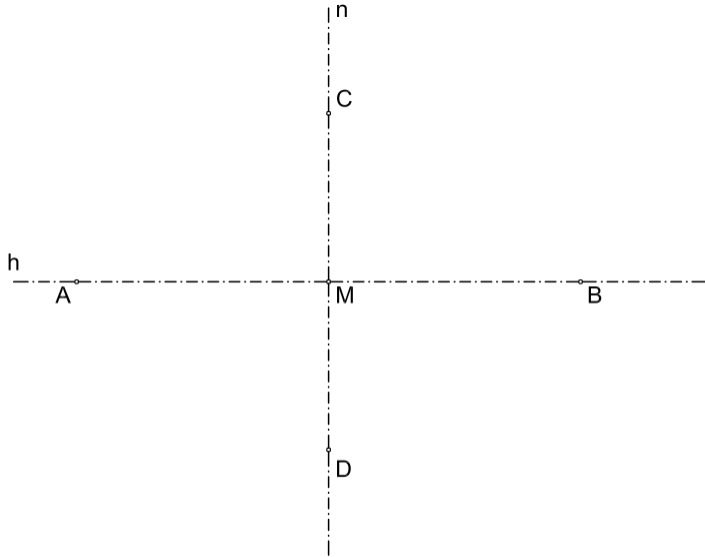


Abbildung 4.4: Punktkonstruktion und Tangentenkonstruktion nach De la Hire

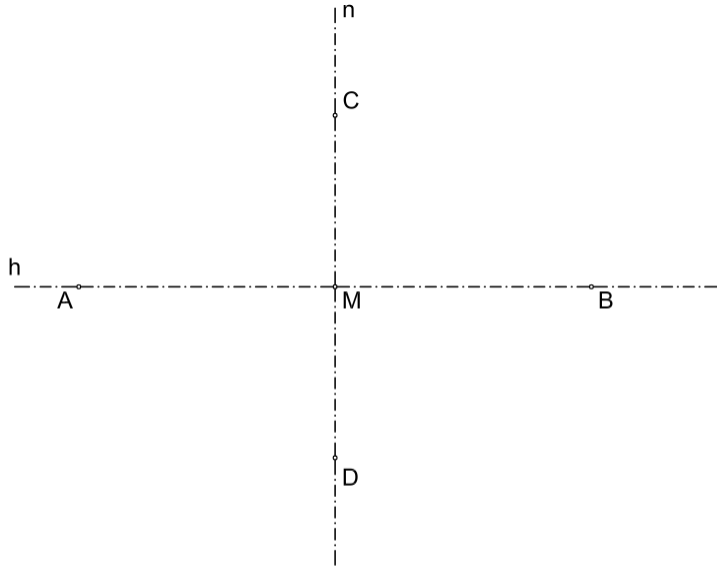


Abbildung 4.5: Konstruktion der Scheitelkrümmungskreise

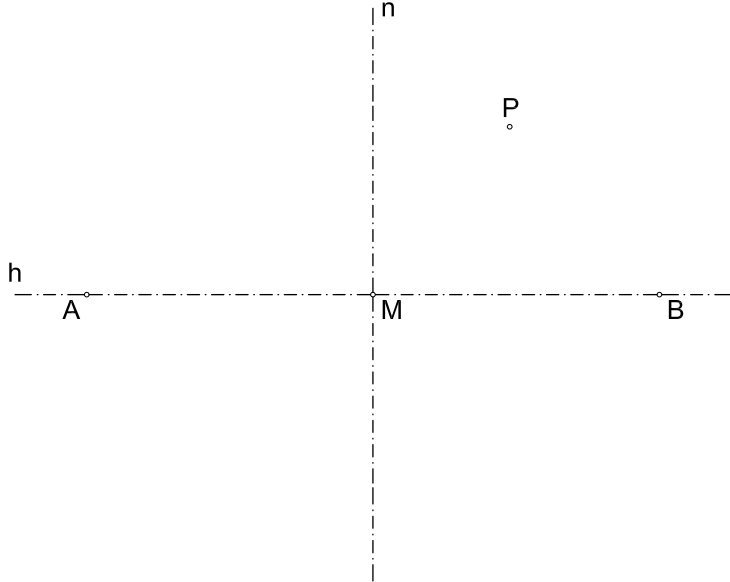


Abbildung 4.7: Umgekehrte Papierstreifenkonstruktion

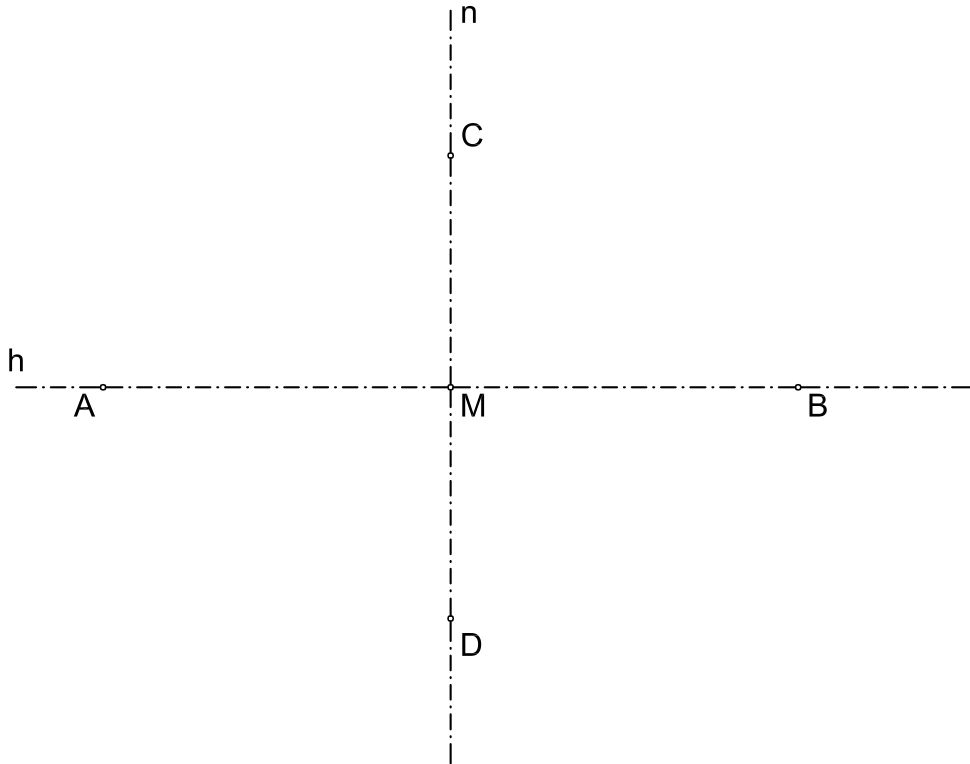


Abbildung 4.8: Konjugierte Durchmesser

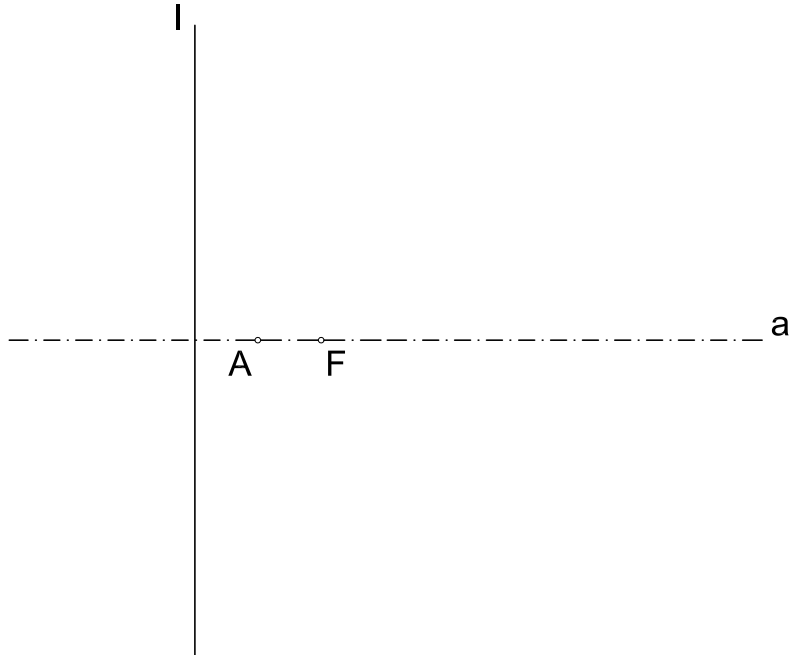


Abbildung 4.12: Punkt- und Tangentenkonstruktion der Parabel

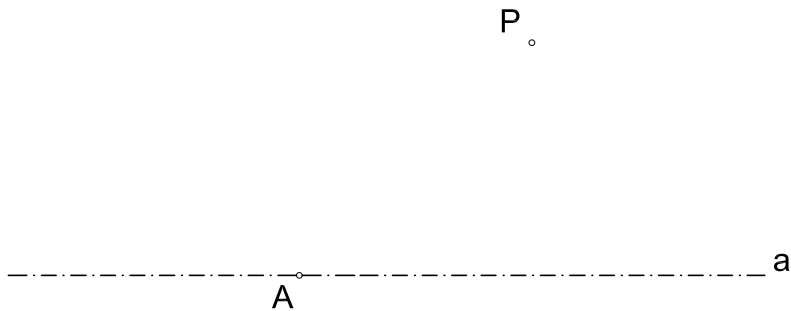


Abbildung 4.13: Konstruktion des Brennpunktes und des Scheitelkrümmungskreises

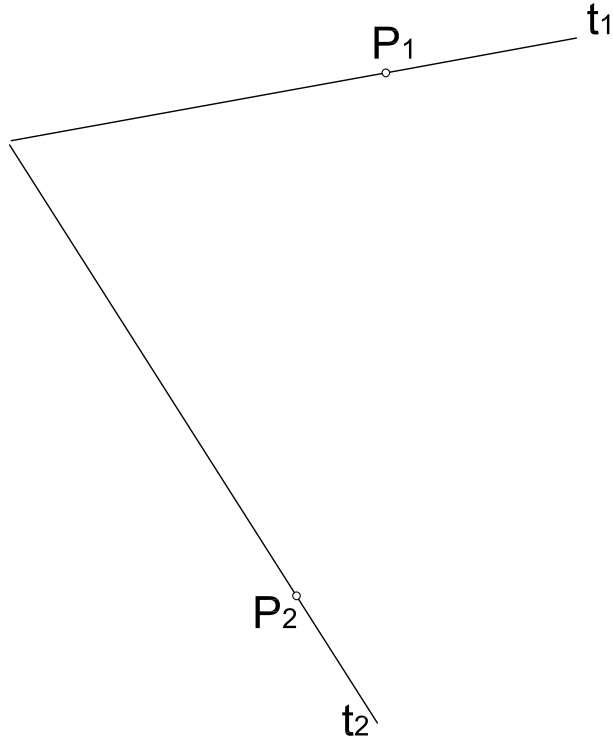


Abbildung 4.14: Parabel aus zwei Linienelementen



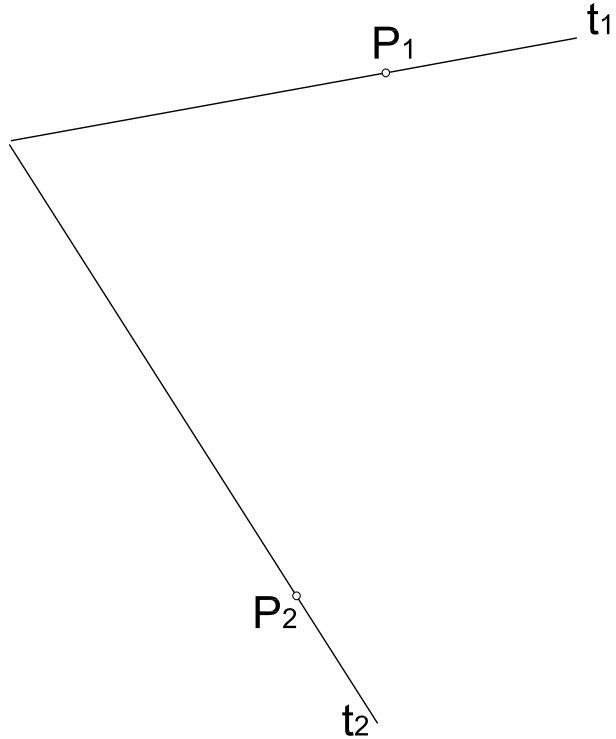


Abbildung 4.15: Parabel aus zwei Linienelementen

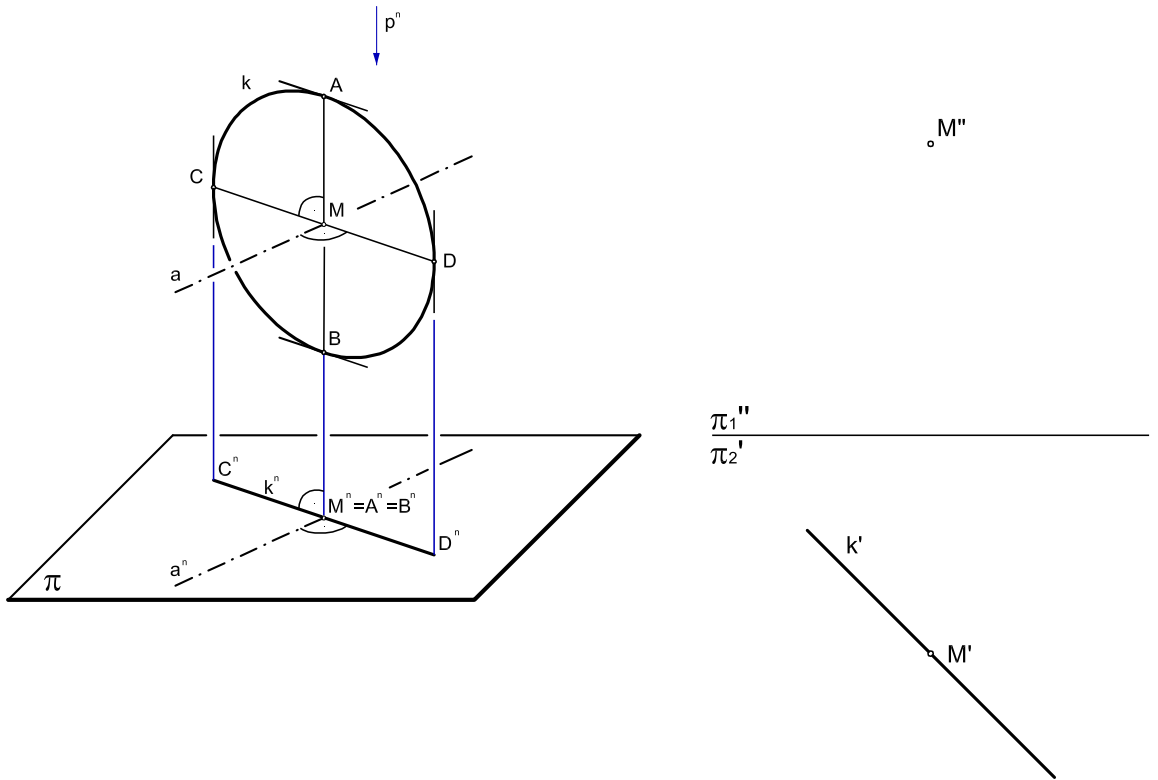


Abbildung 4.18: Kreis in projizierender Ebene

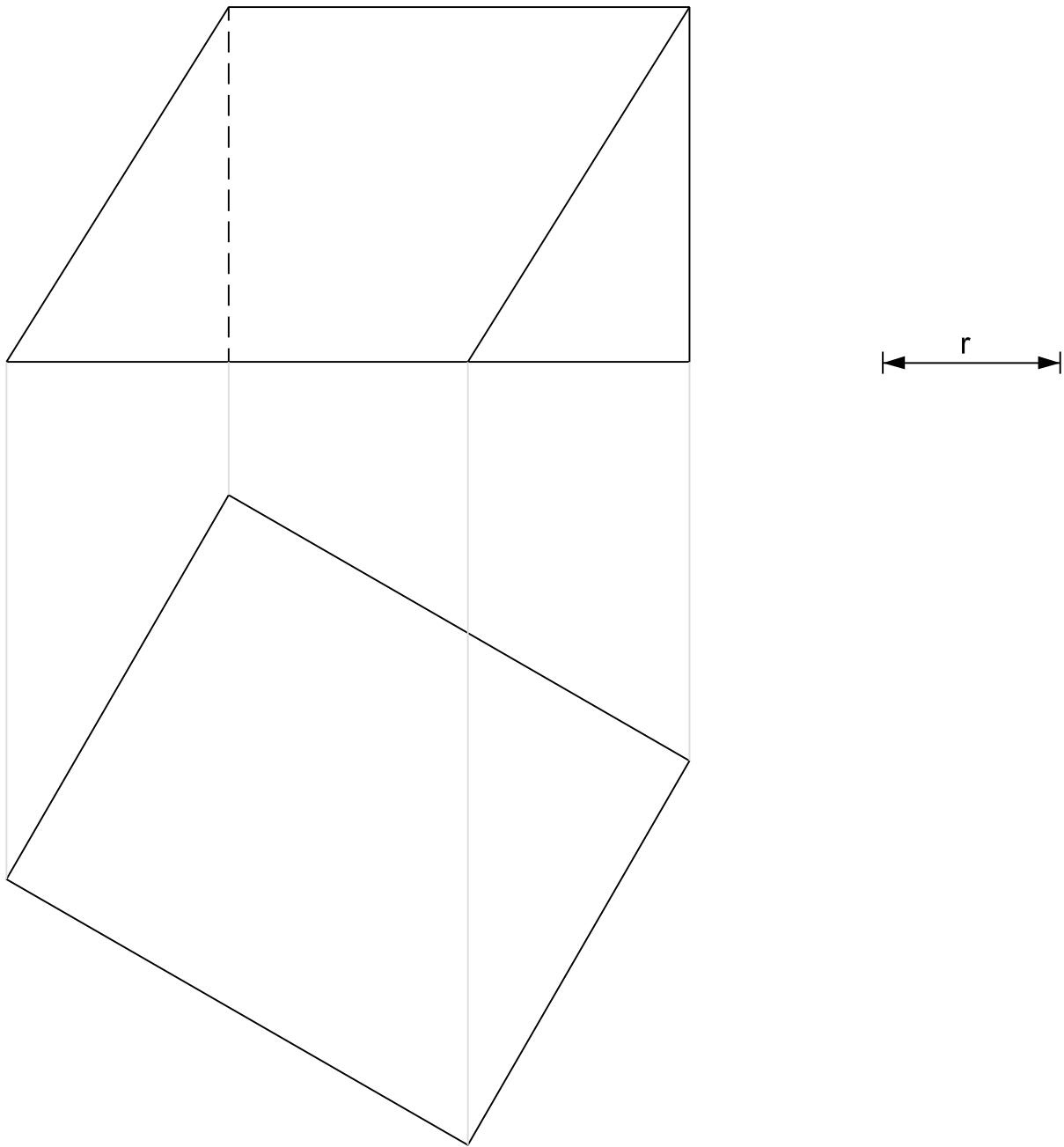


Abbildung 4.19: Kreisförmiges Loch in schräger Wand

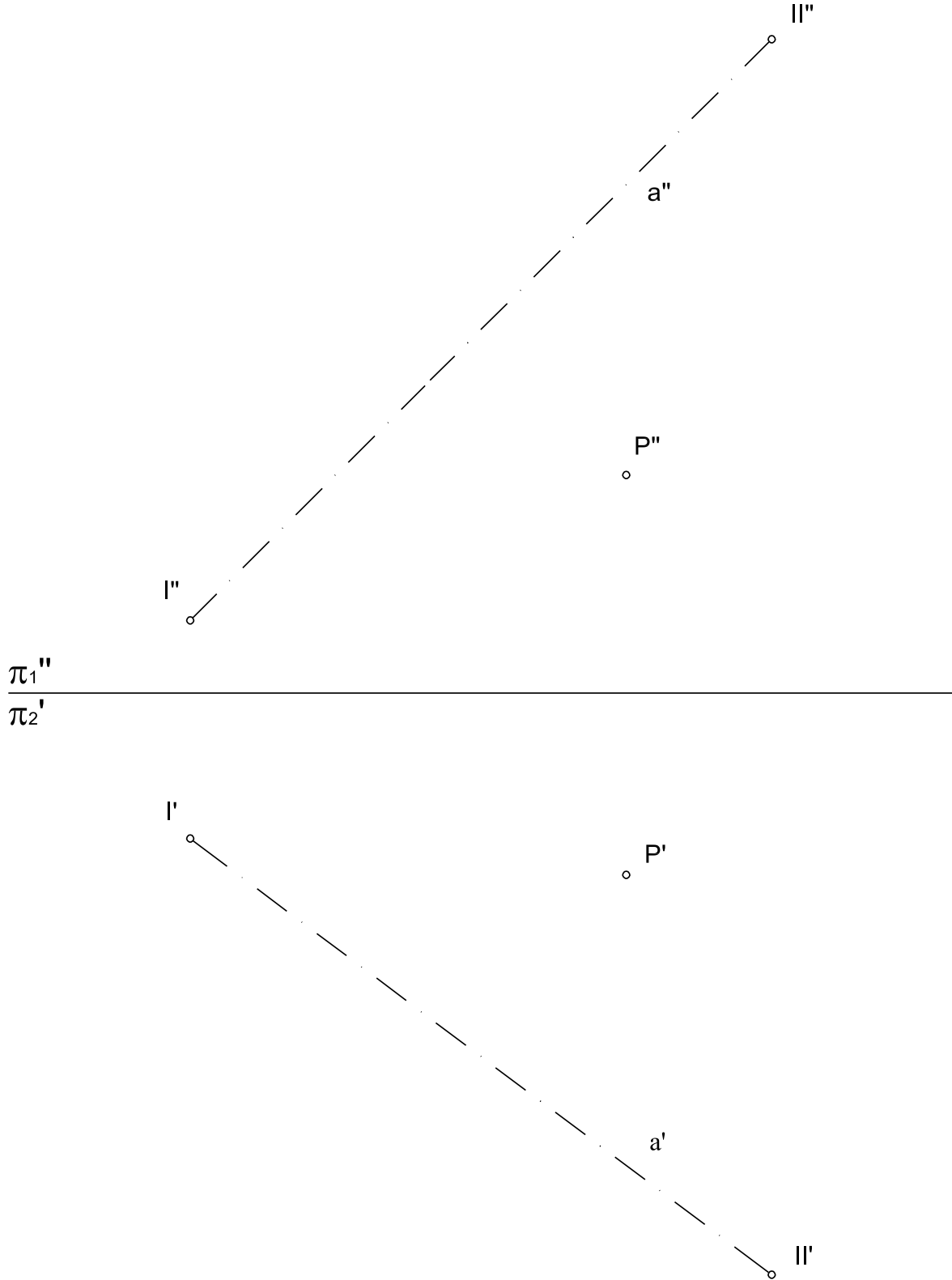


Abbildung 4.20: Ein Punkt rotiert um eine Achse und beschreibt eine kreisförmige Bahn

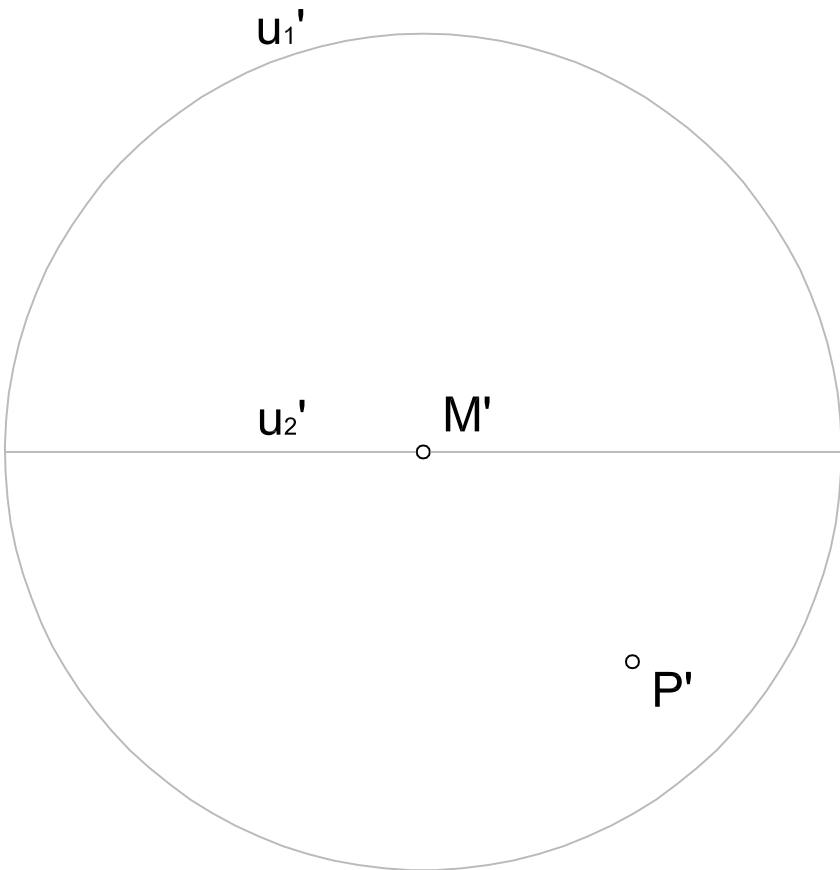
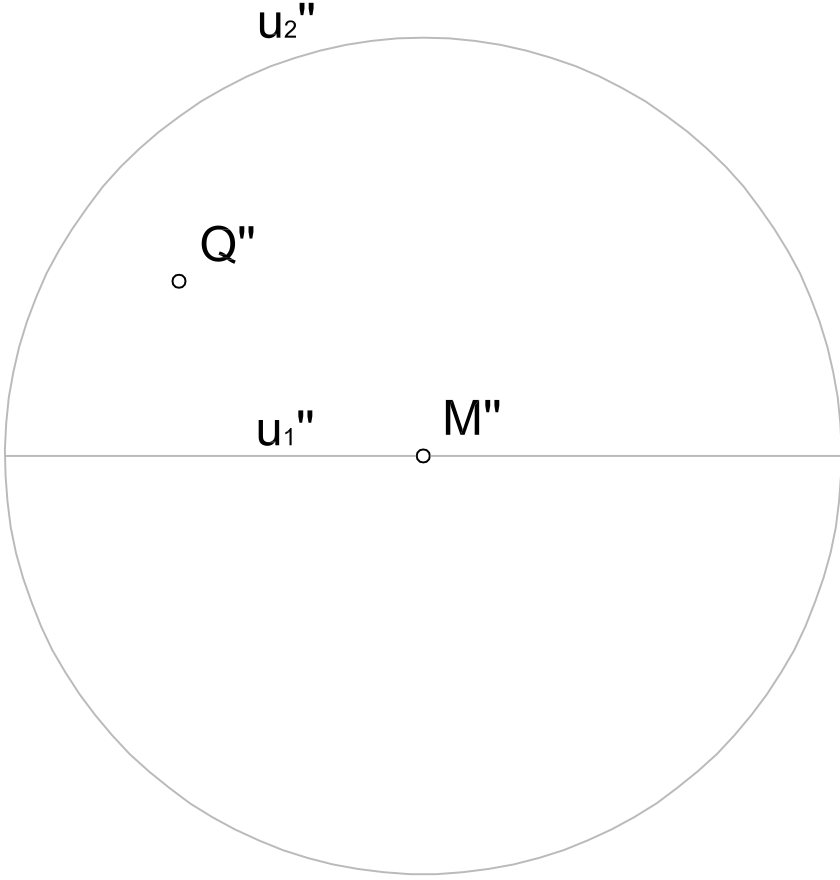


Abbildung 4.26: Angittern auf einer Kugel

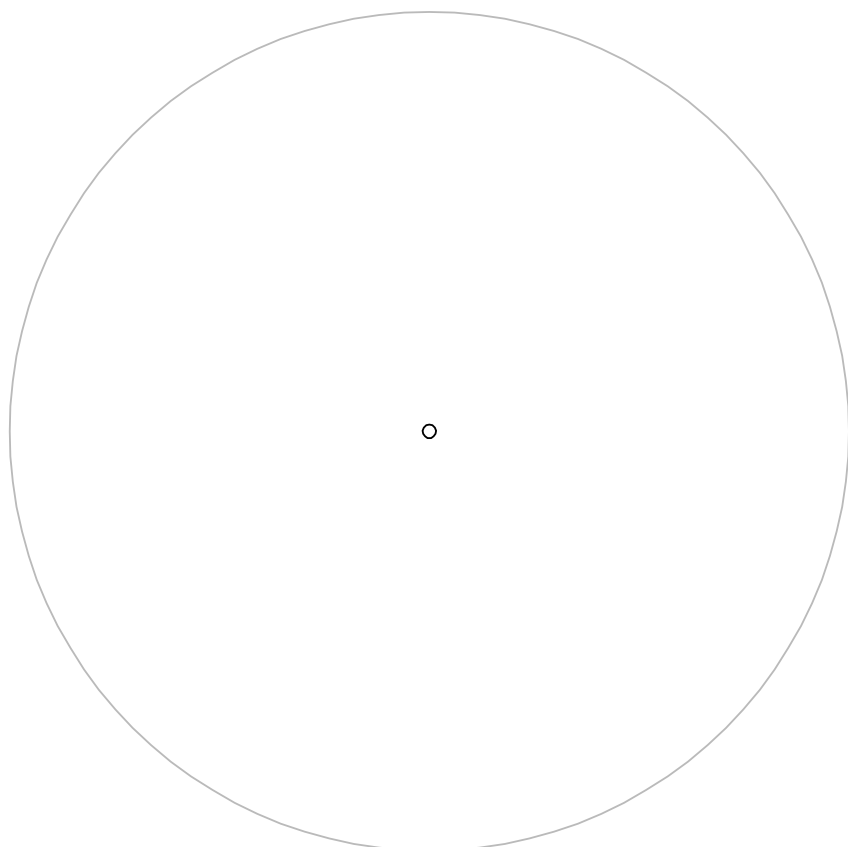
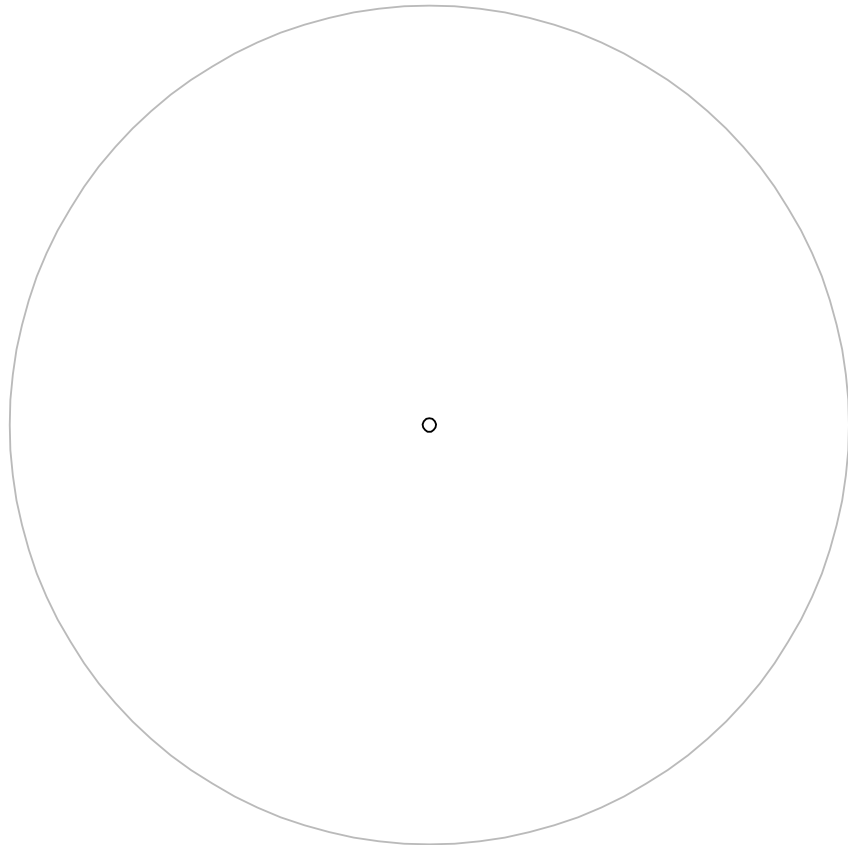


Abbildung 4.27: Flugroute

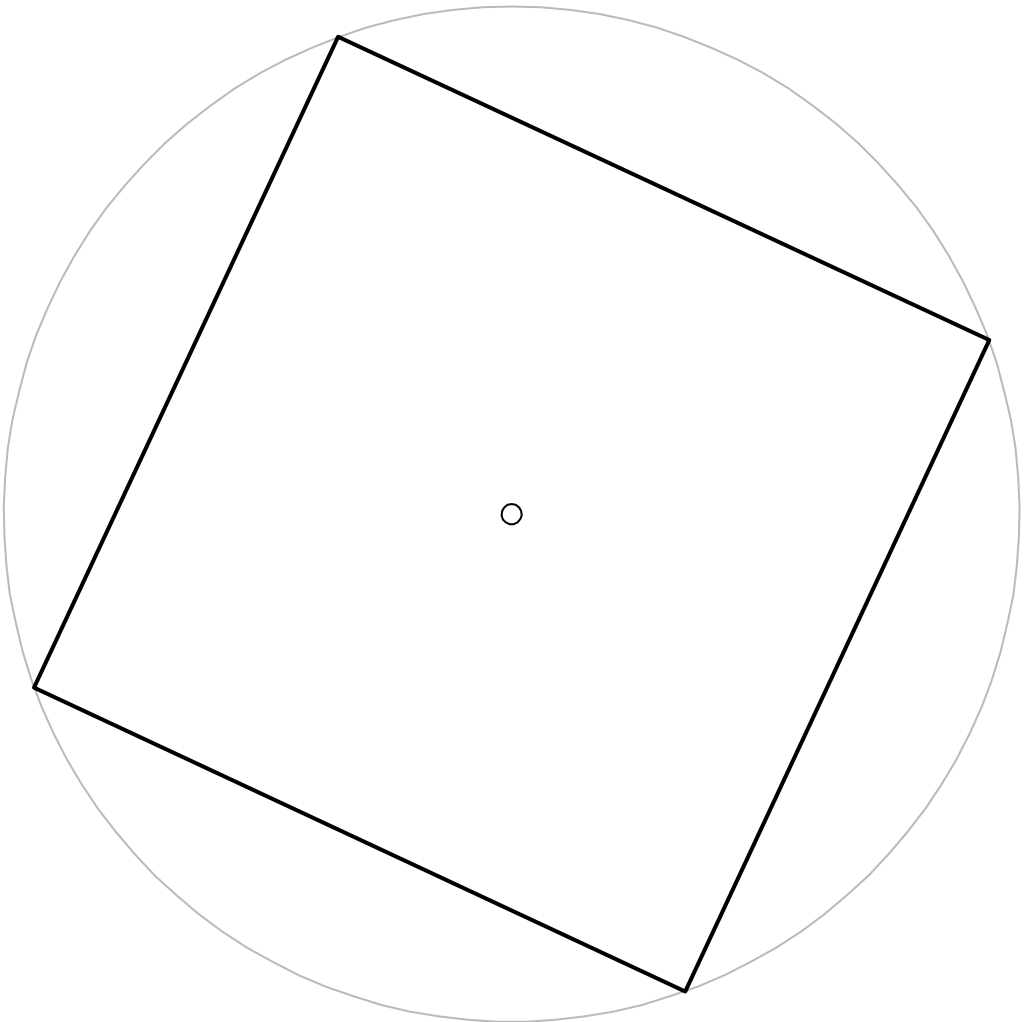
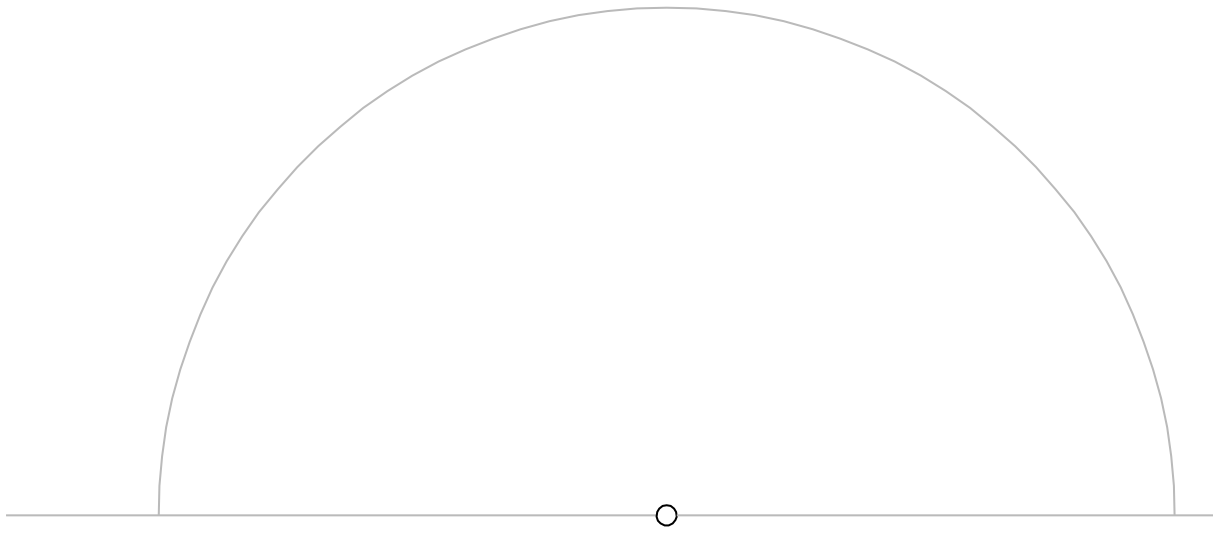


Abbildung 4.28: Dachschale

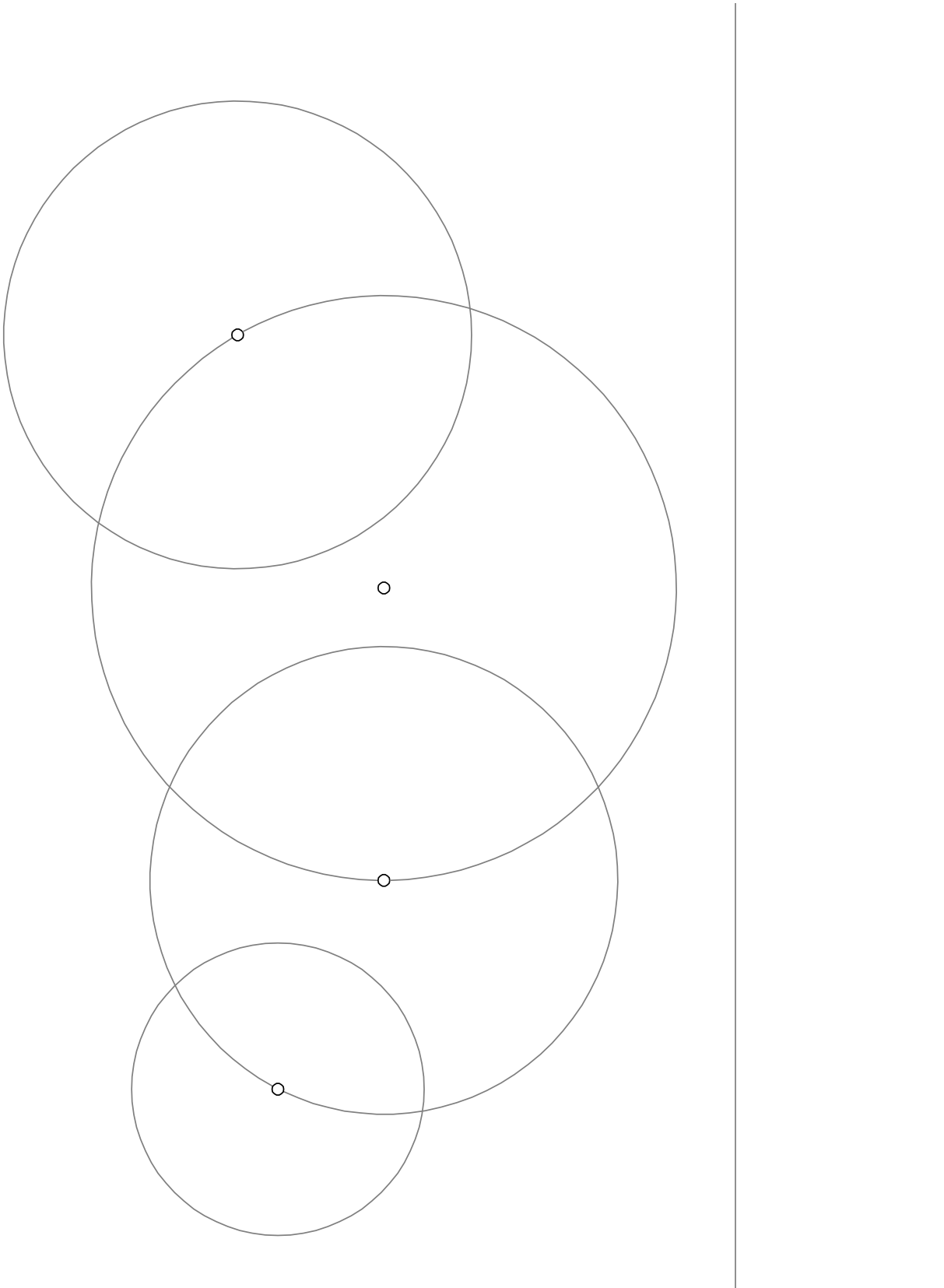


Abbildung 4.30: Kugelschachtelung: Teil des Garden of Eden Projects



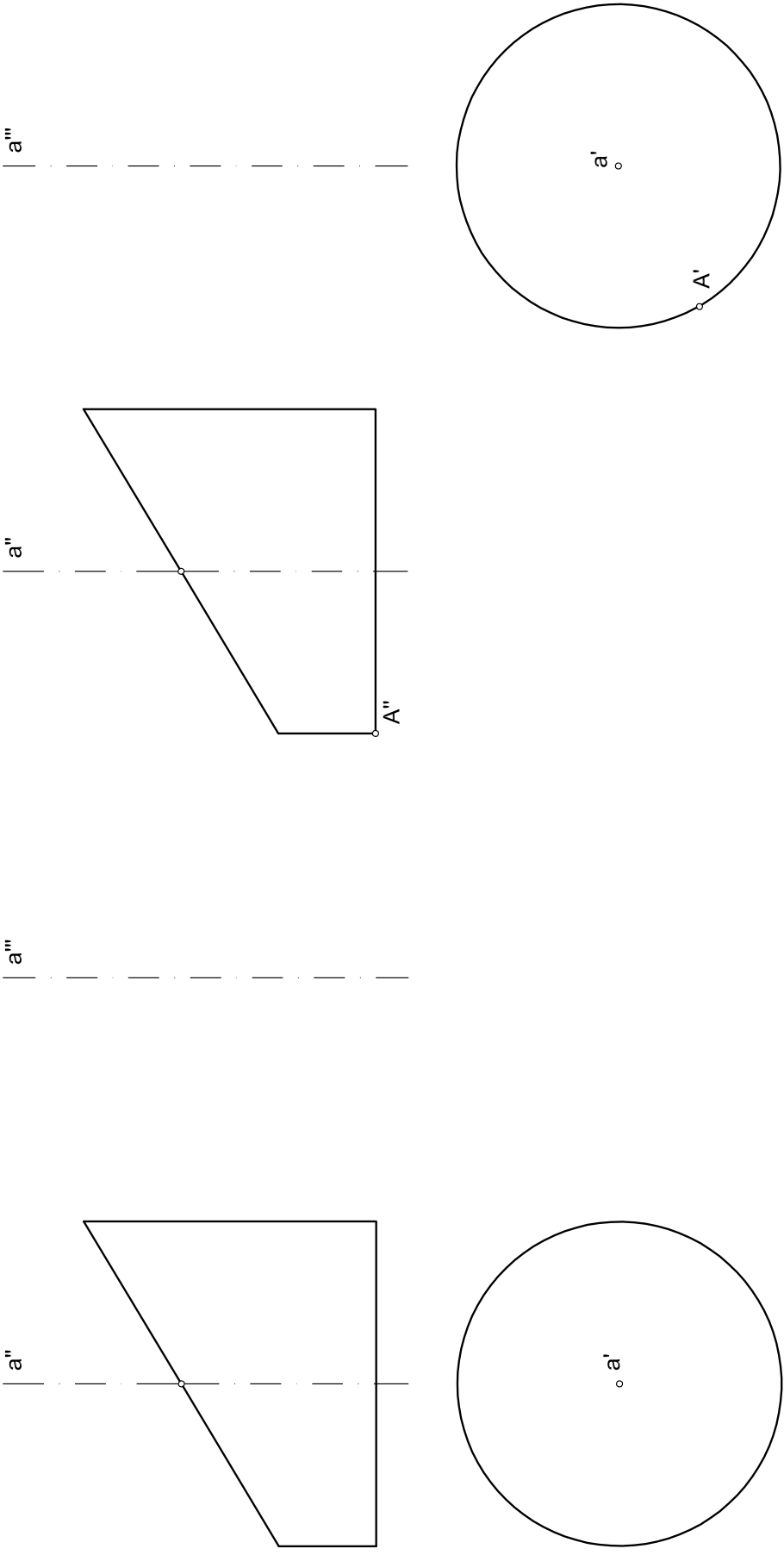
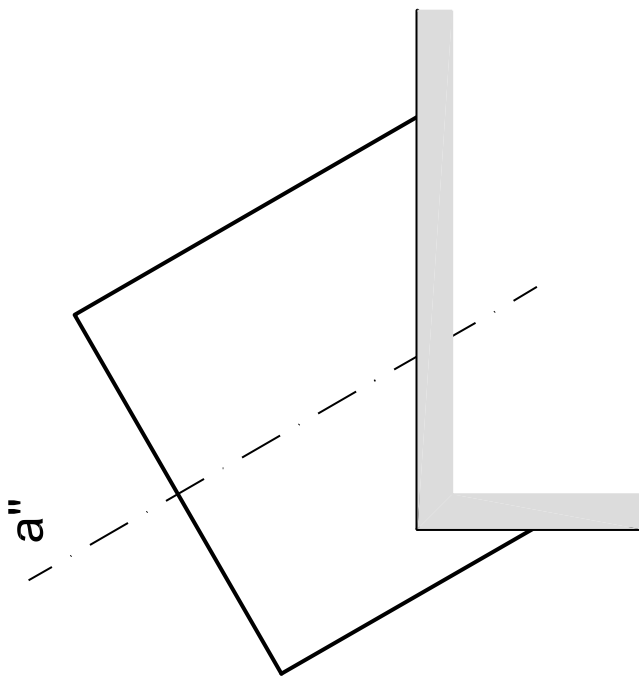


Abbildung 4.33: Ebener Schnitt eines Zylinders

a'''



a''

Abbildung 4.34: Einfüllstutzen

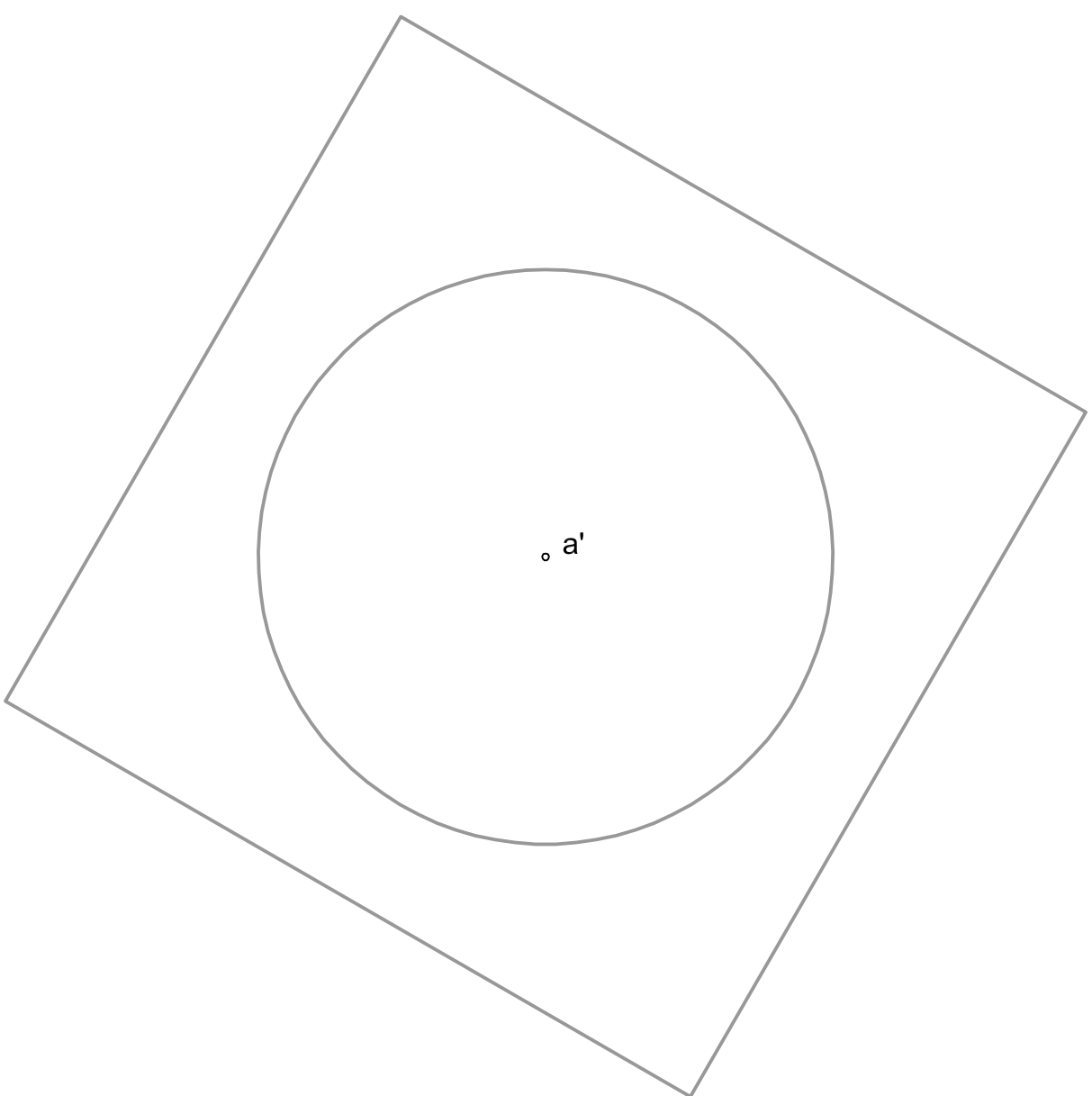
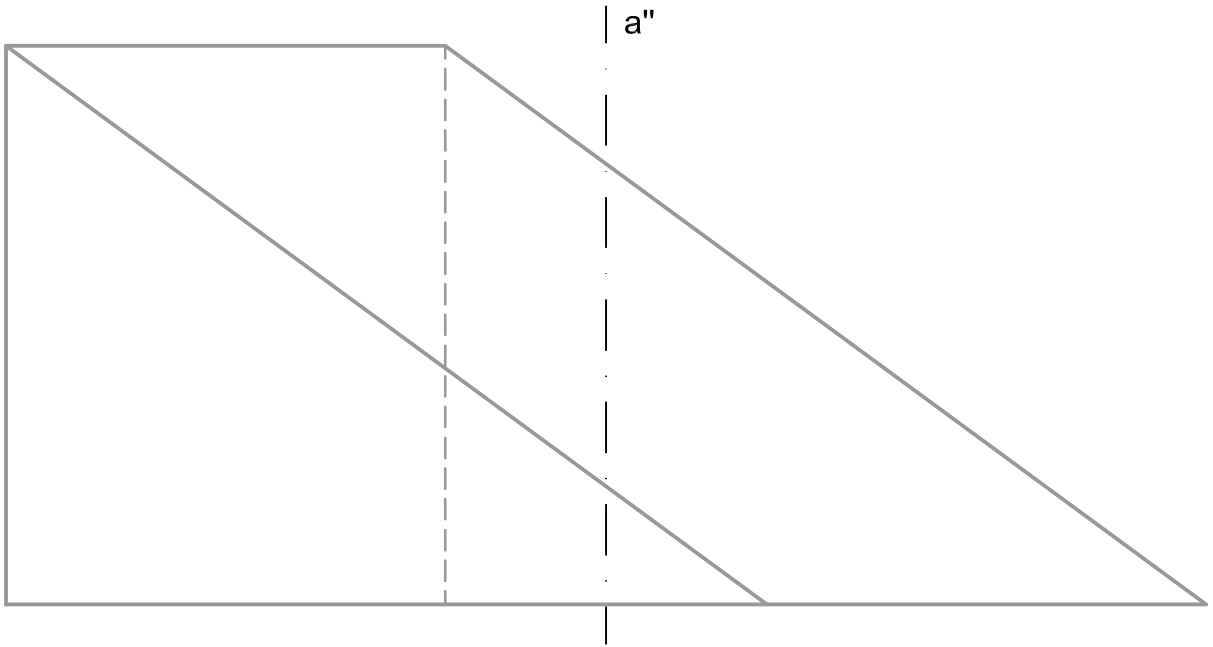


Abbildung 4.35: Rampe mit zylindrischem Loch

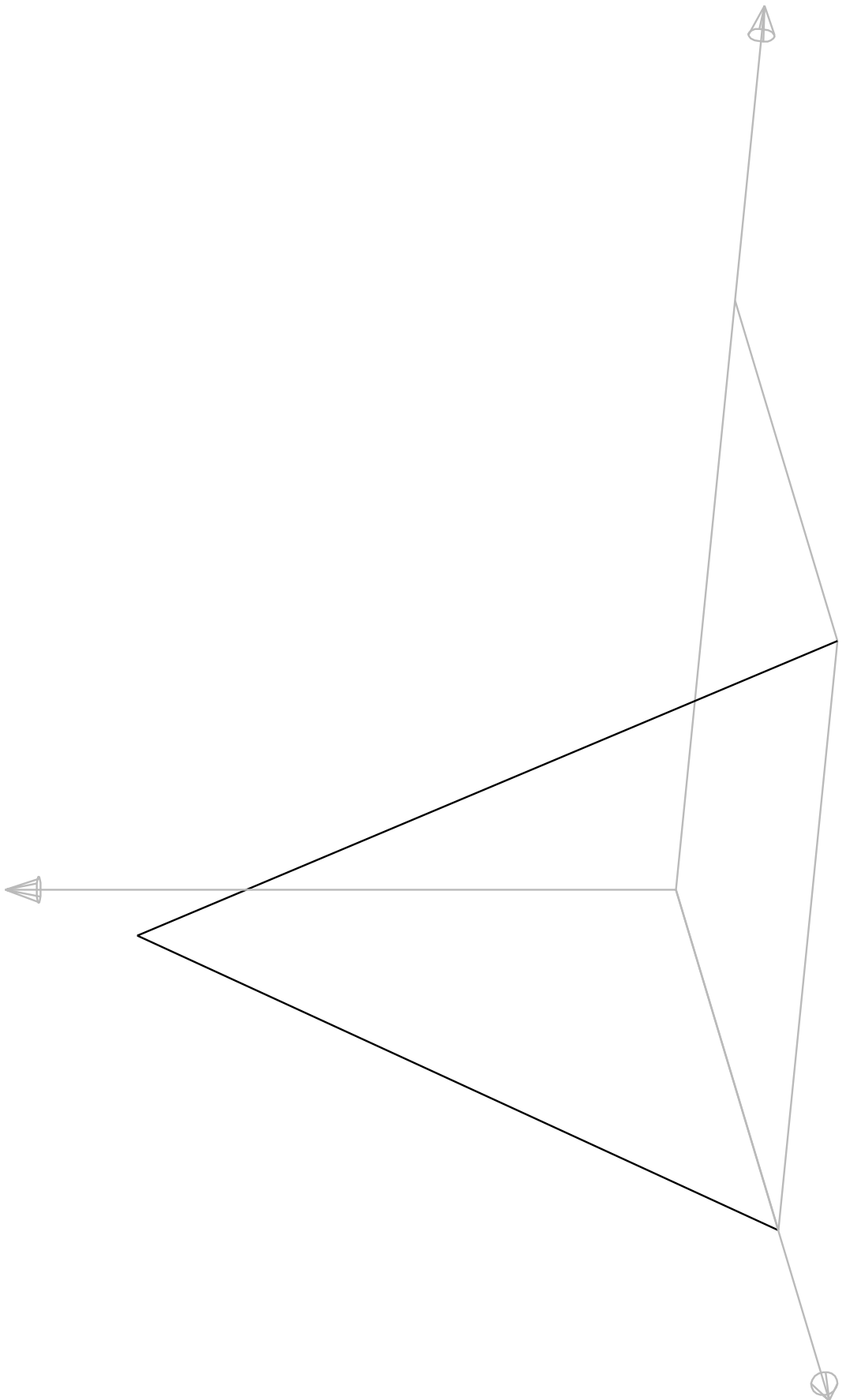


Abbildung 4.36: Parabolische Hallenüberdachung

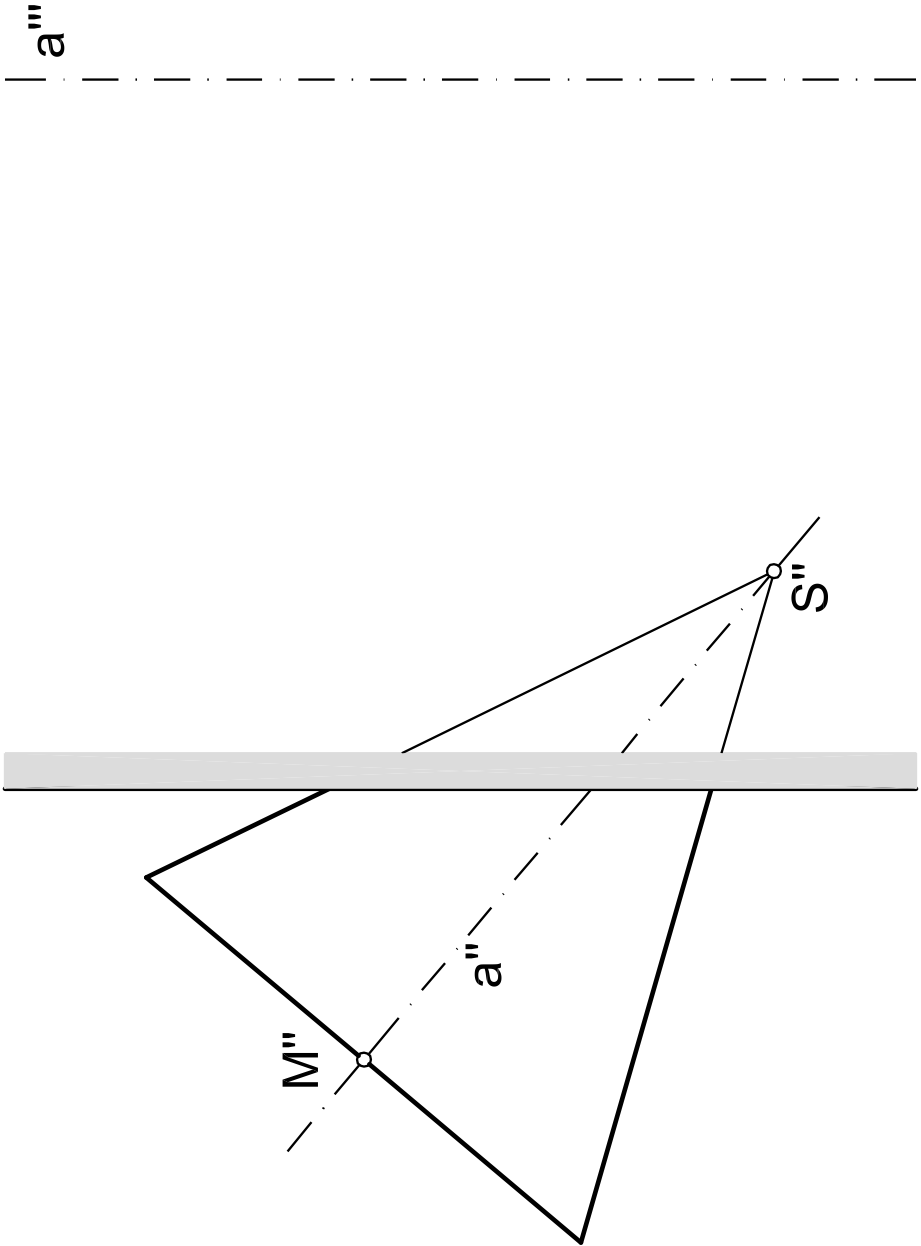


Abbildung 4.40: Wandleuchte

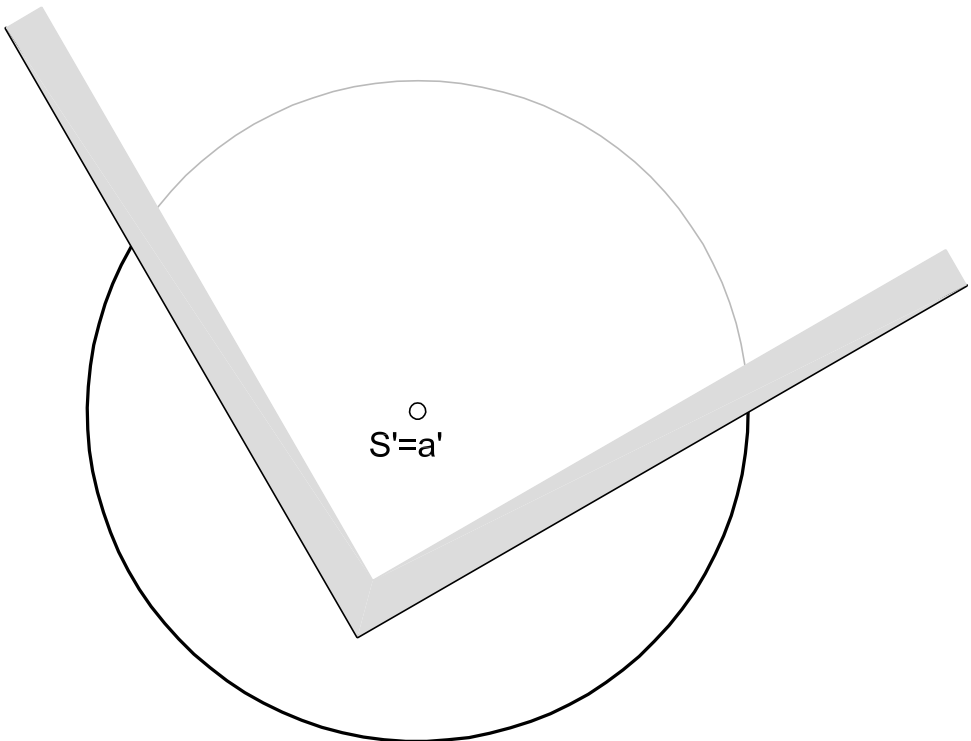
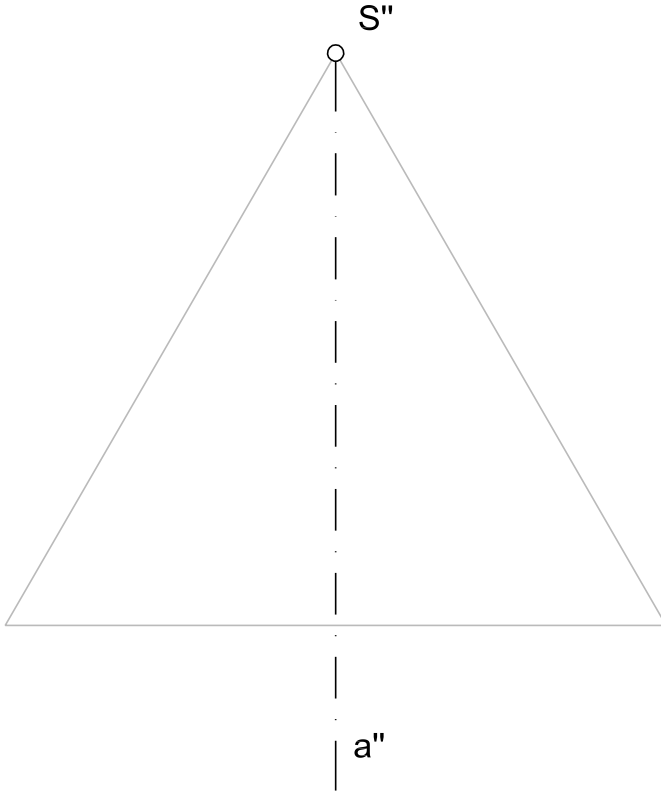


Abbildung 4.41: Kegelförmige Erkerüberdachung

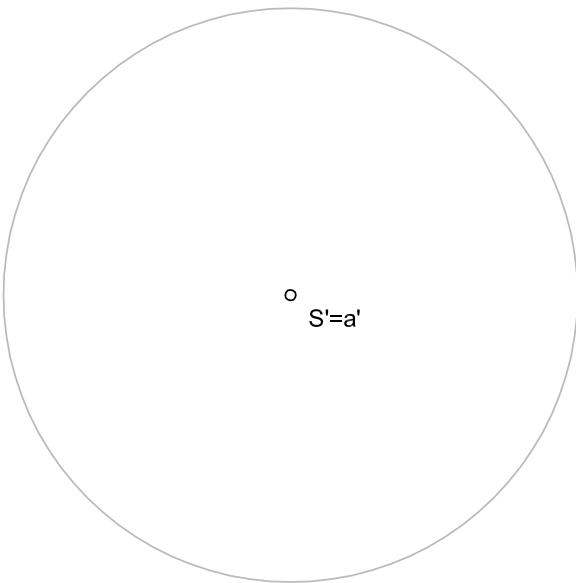
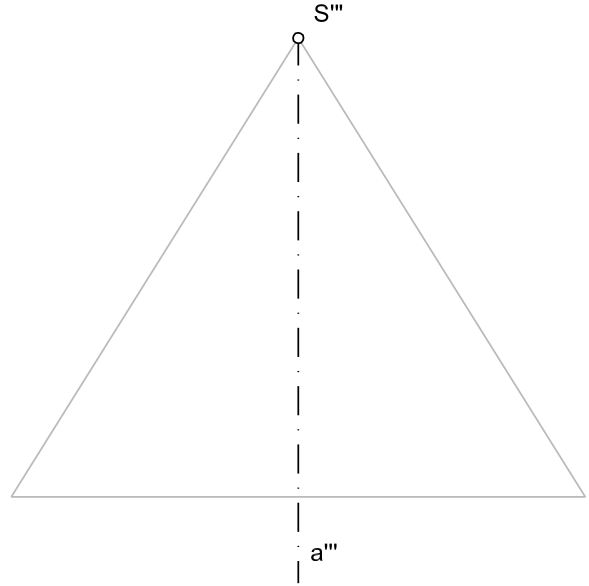
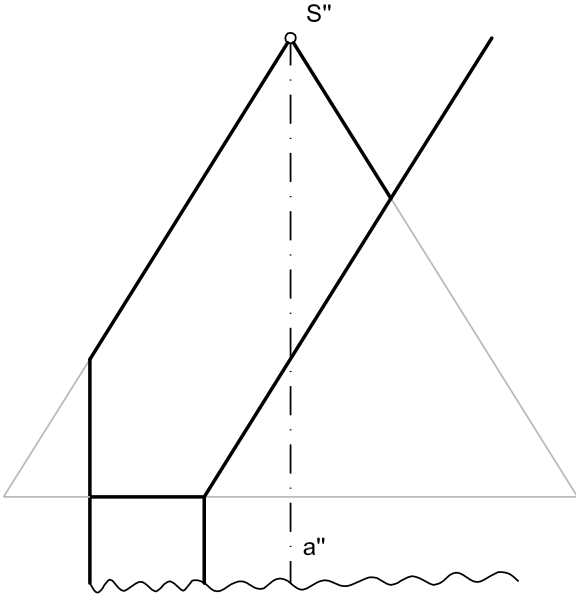


Abbildung 4.42: Dachturm