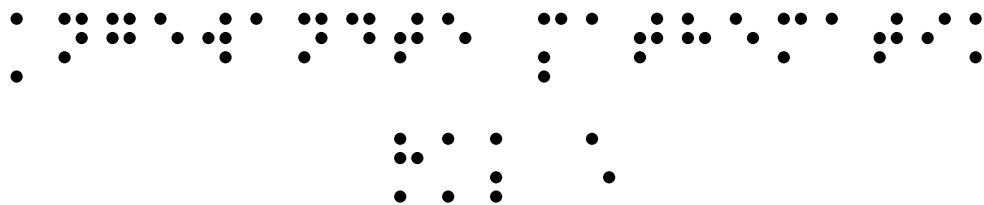
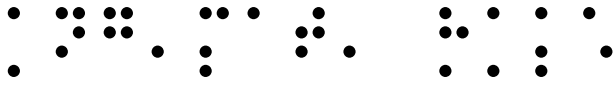
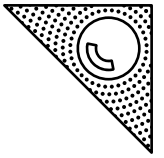


**Tastbare Versionen ausgewählter
Grafiken aus dem Schulbuch**

Angewandte Mathematik HAK 1



Grafiken: Tomáš Batha



Ang.Mat. HAK1

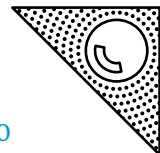
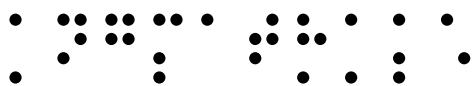


Teil 1, Seiten 43-88

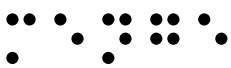
Angewandte Mathematik

HAK Band 1

Teil 1, Seiten 10-100



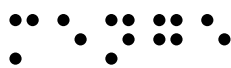
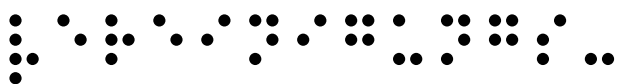
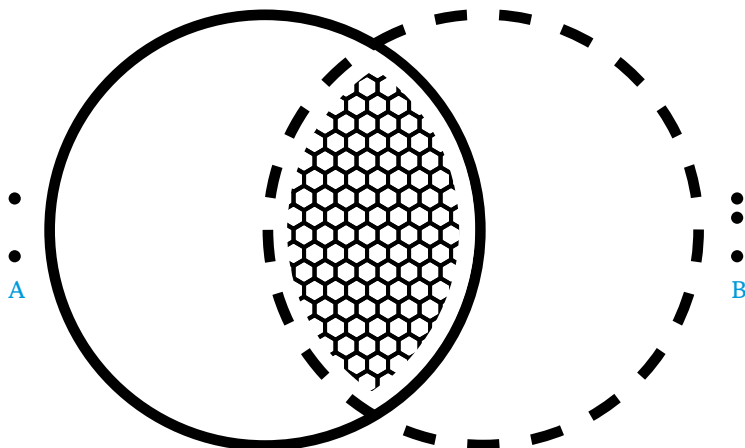
Verknüpfung von Mengen



Durchschnittsmenge



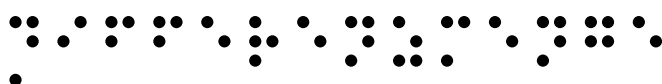
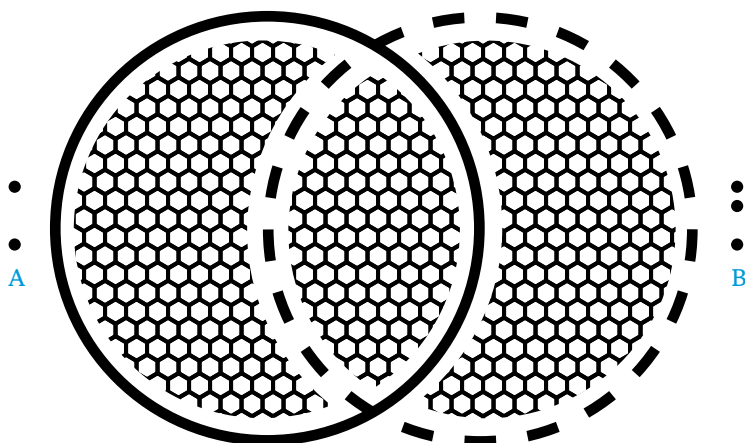
$A \cap B$



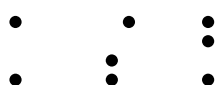
Vereinigungsmenge



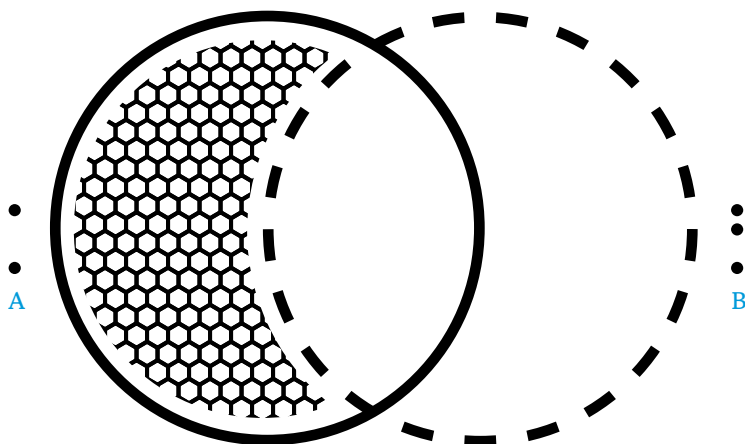
$A \cup B$

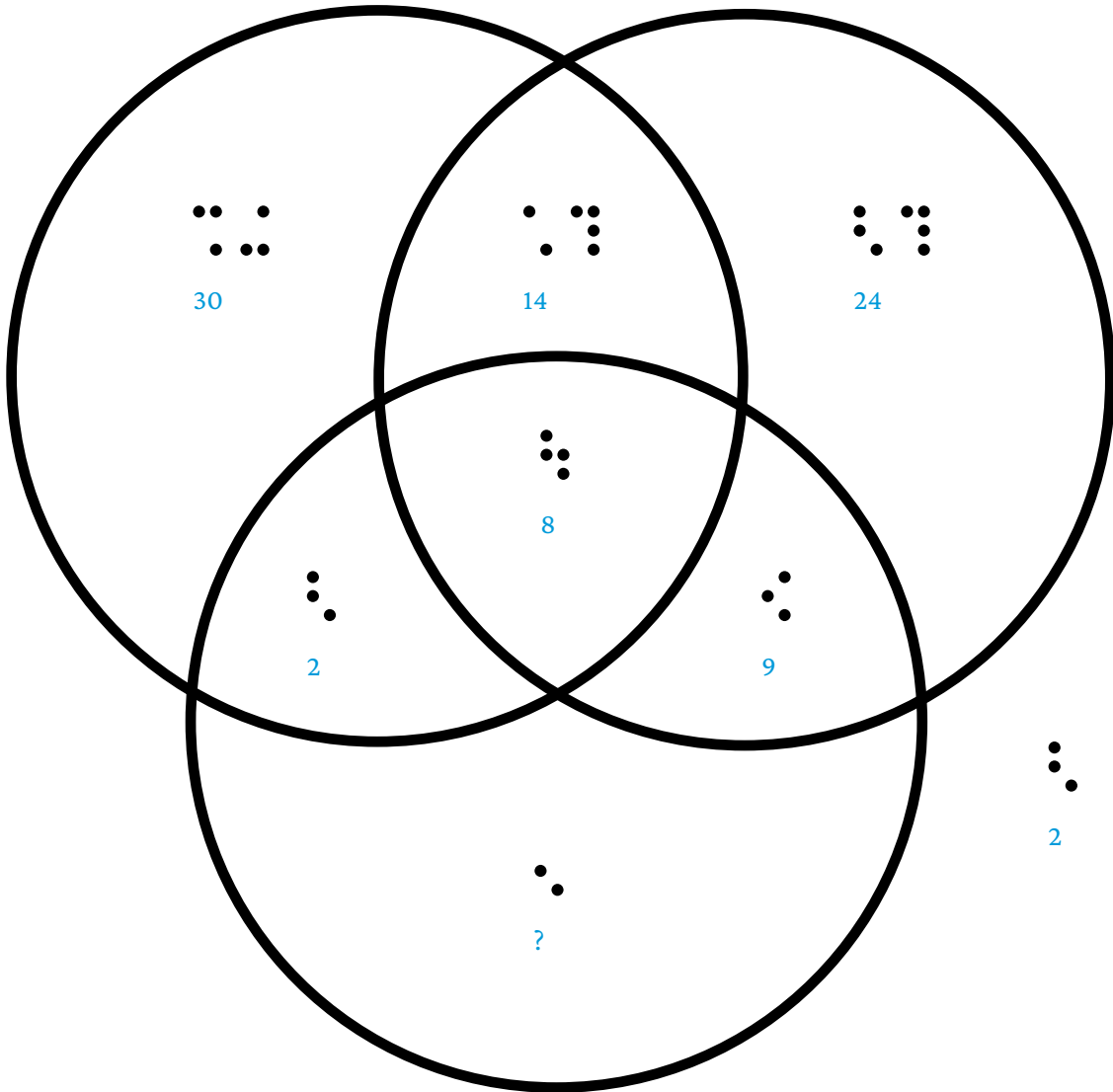
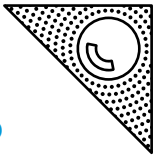


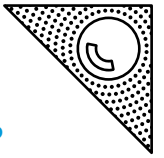
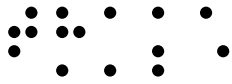
Differenzmenge



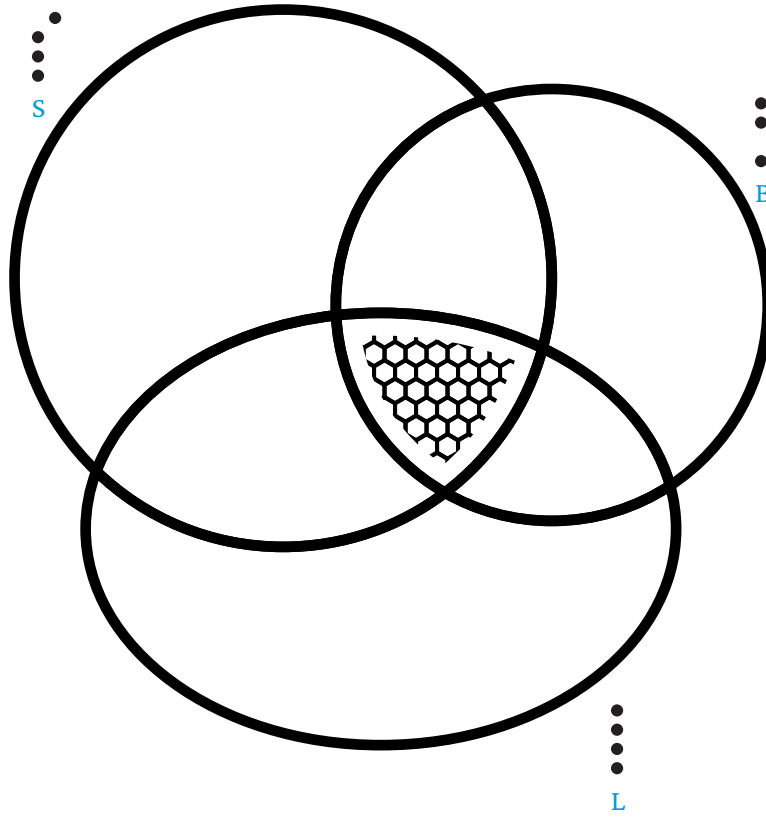
$A \setminus B$



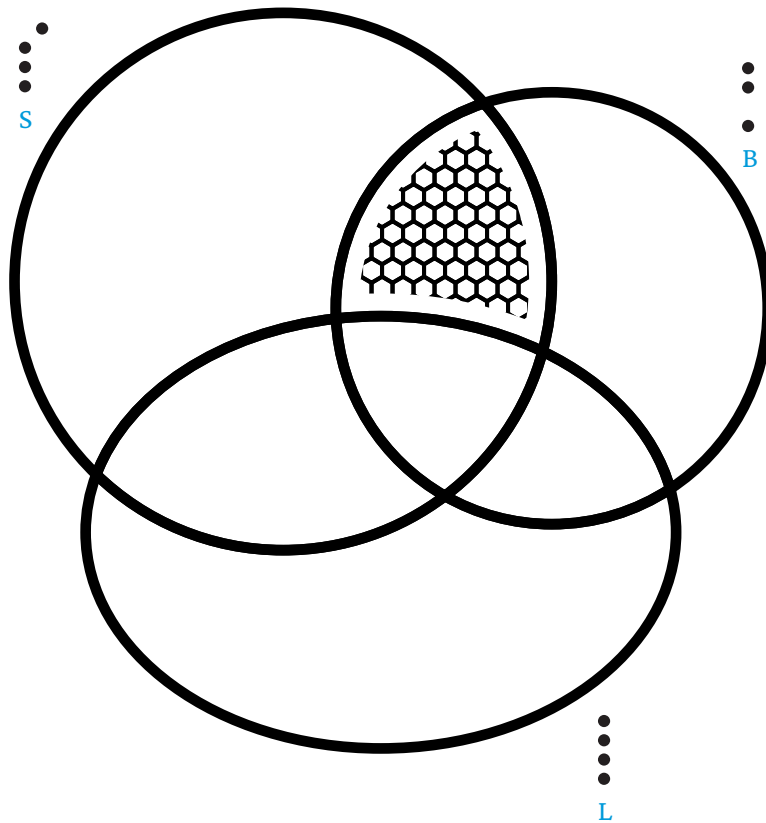


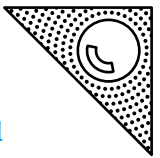
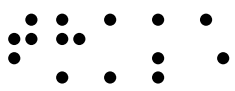
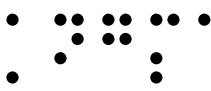


a)

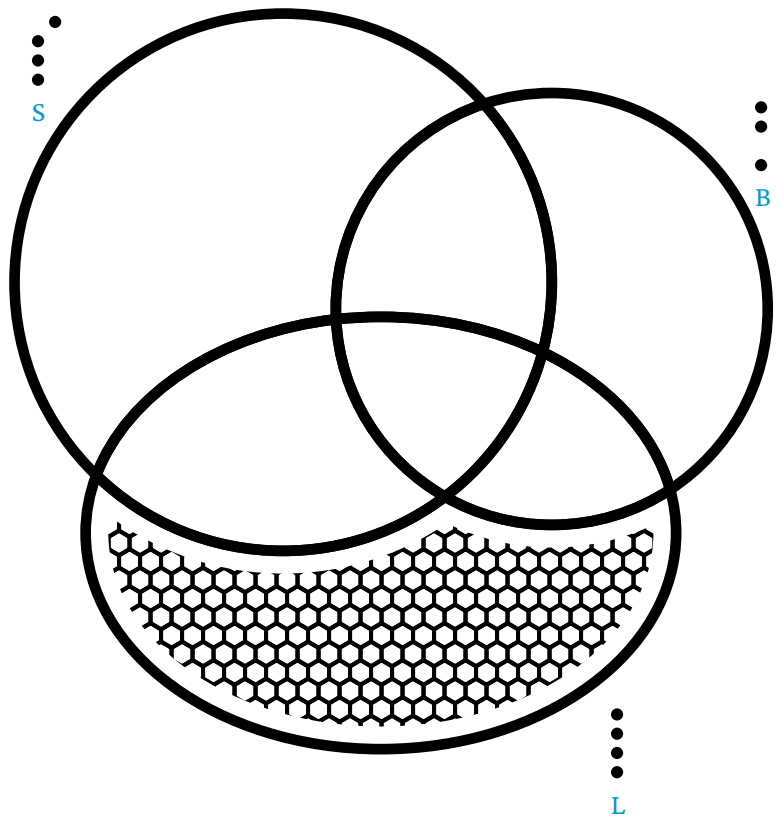


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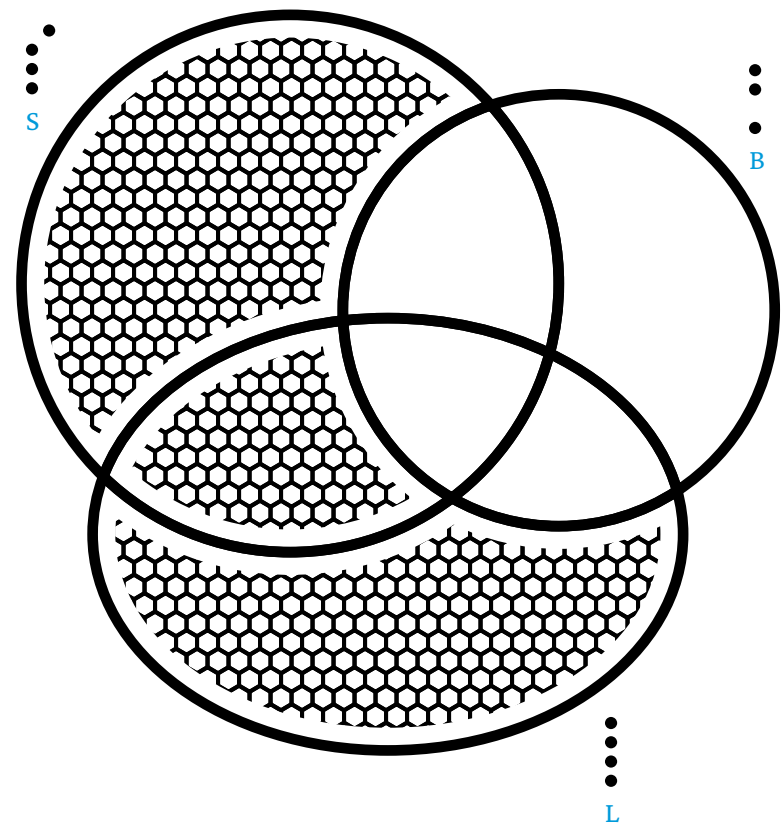


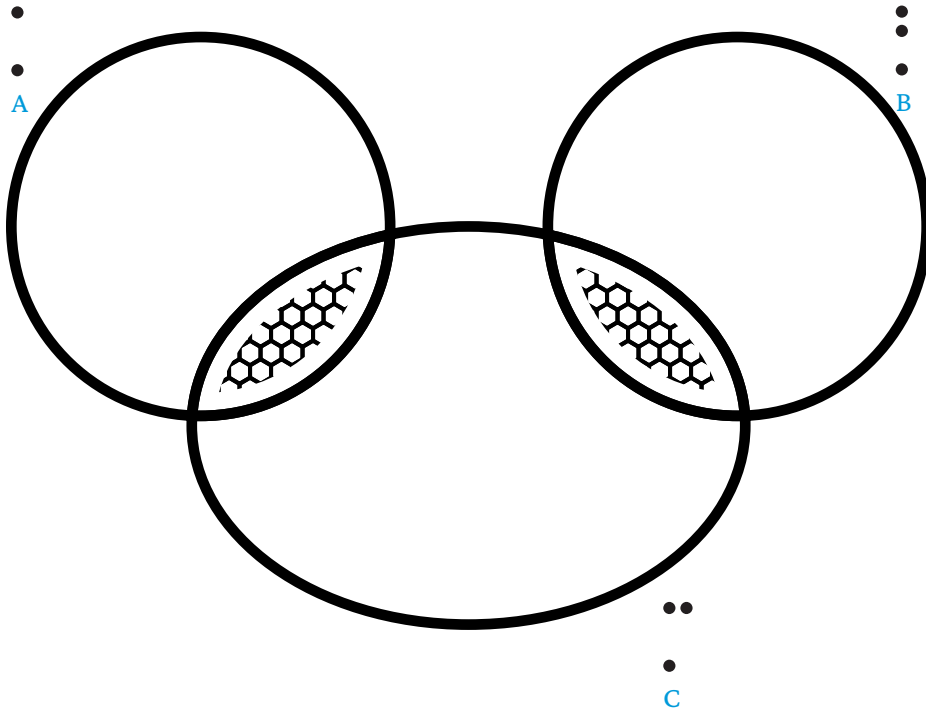
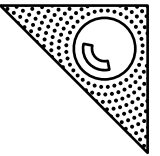
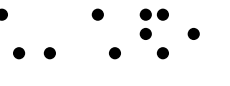
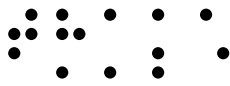


c)



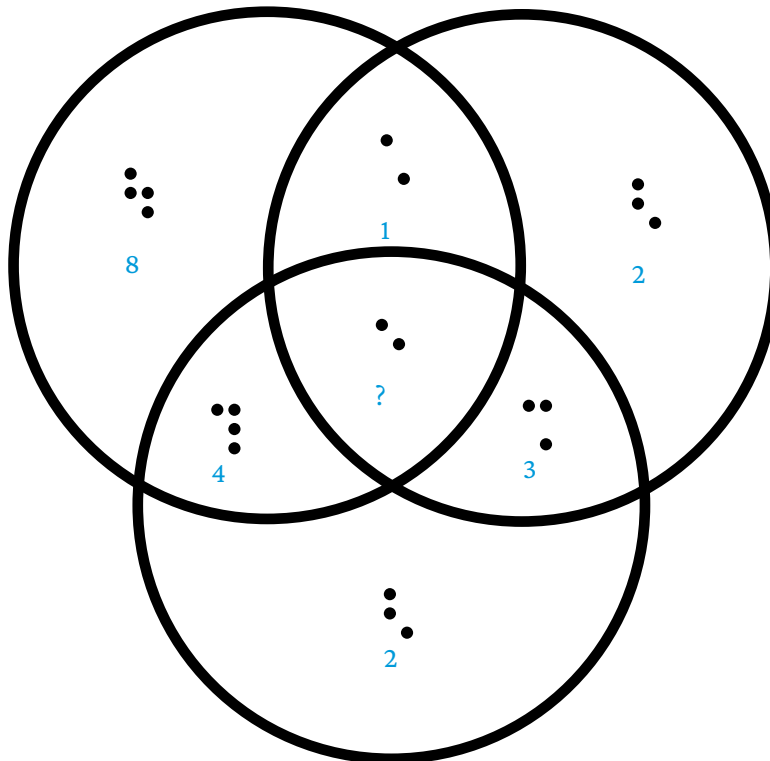
d)

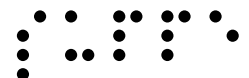




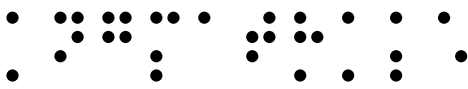
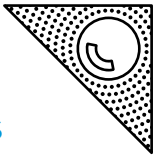
1.17


 Pizza




 Suppe


 Pudding

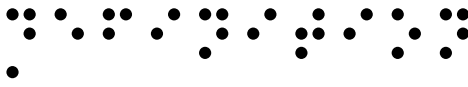


AngMatHAK1

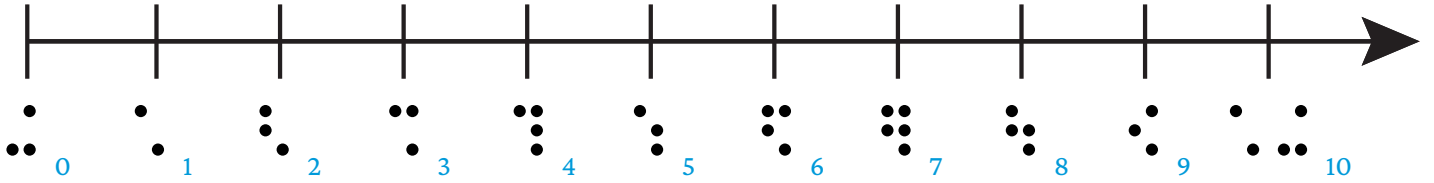
S.12, 16



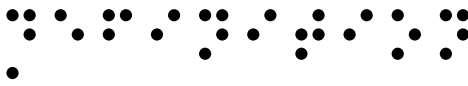
Die natürlichen Zahlen 'N



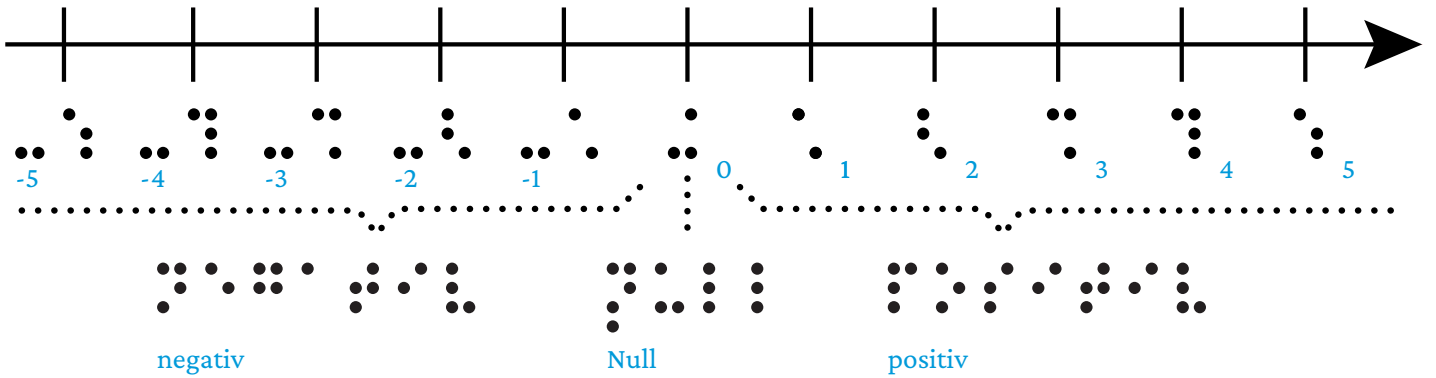
Definition



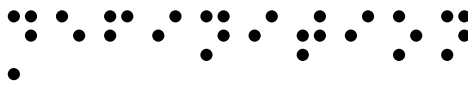
Die ganzen Zahlen 'Z



Definition

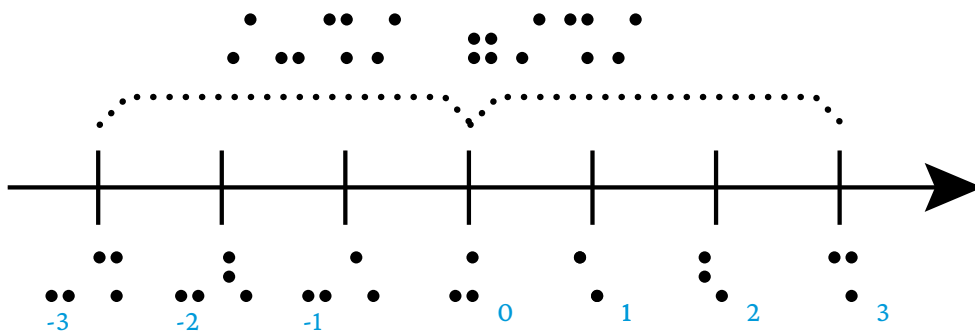


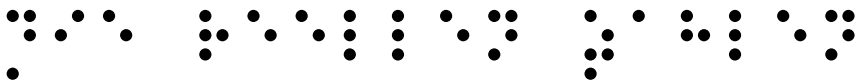
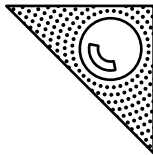
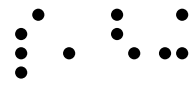
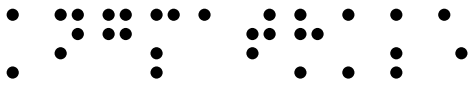
Betrag einer Zahl



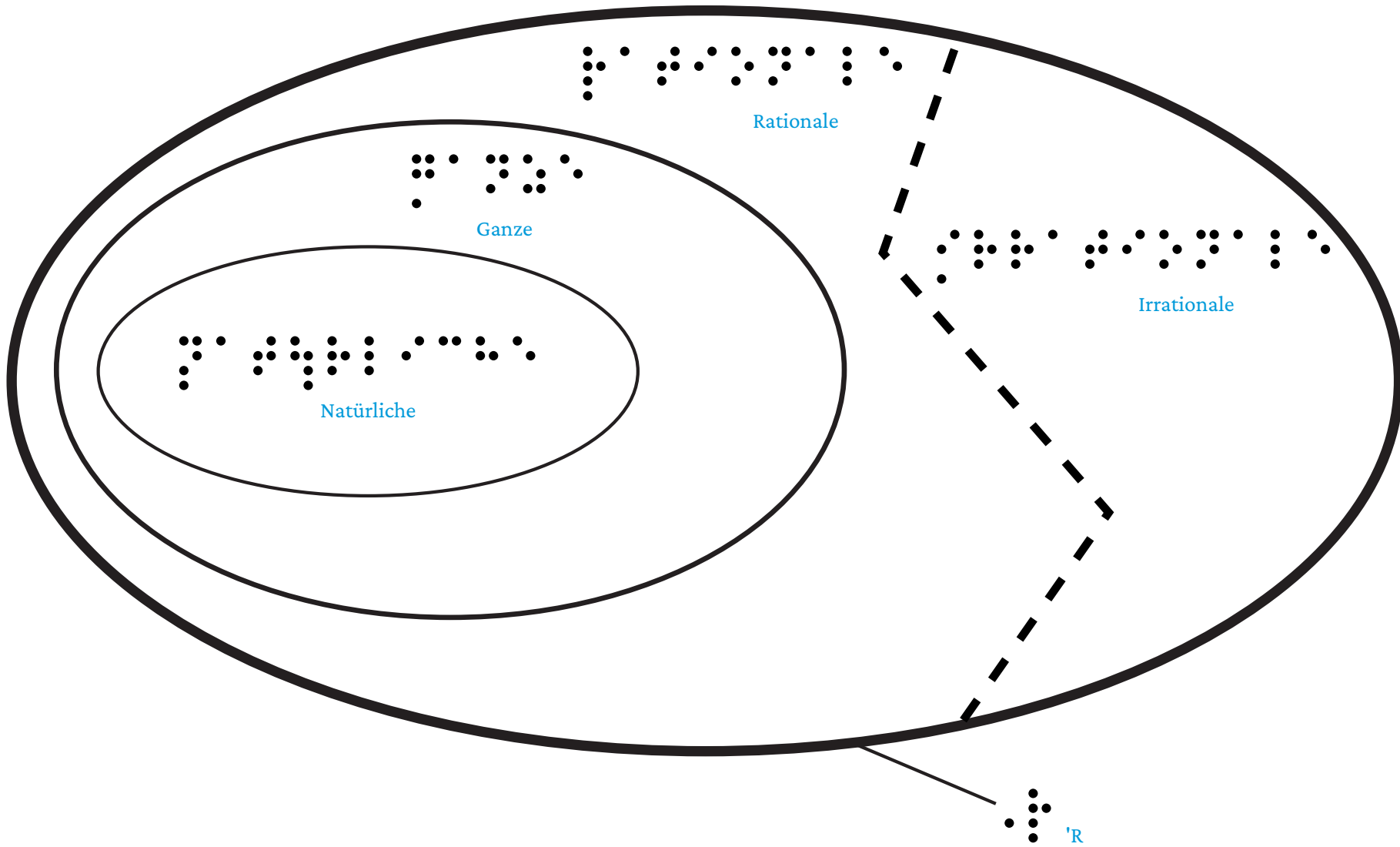
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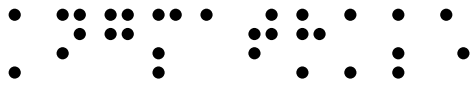
$|-3| = |3|$



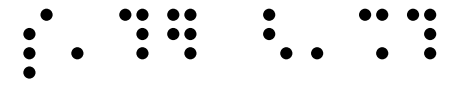


Die reellen Zahlen

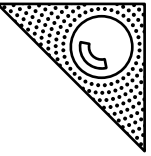




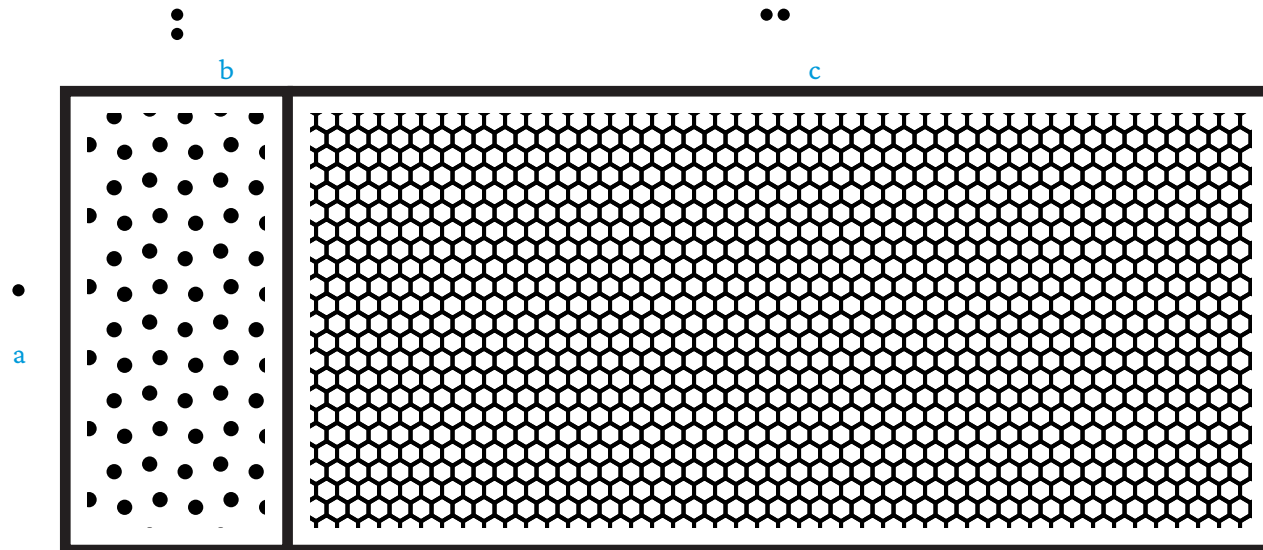
AngMatHAKI

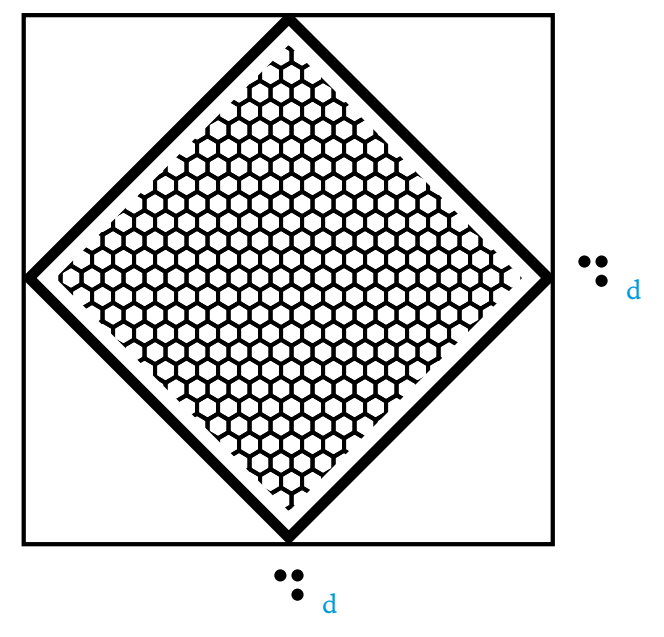
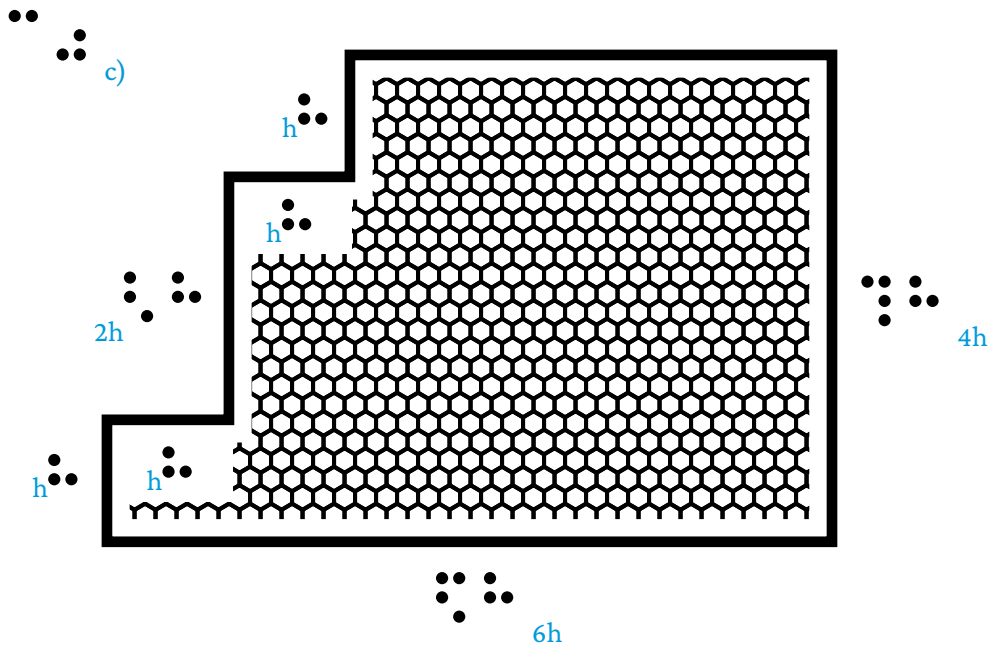
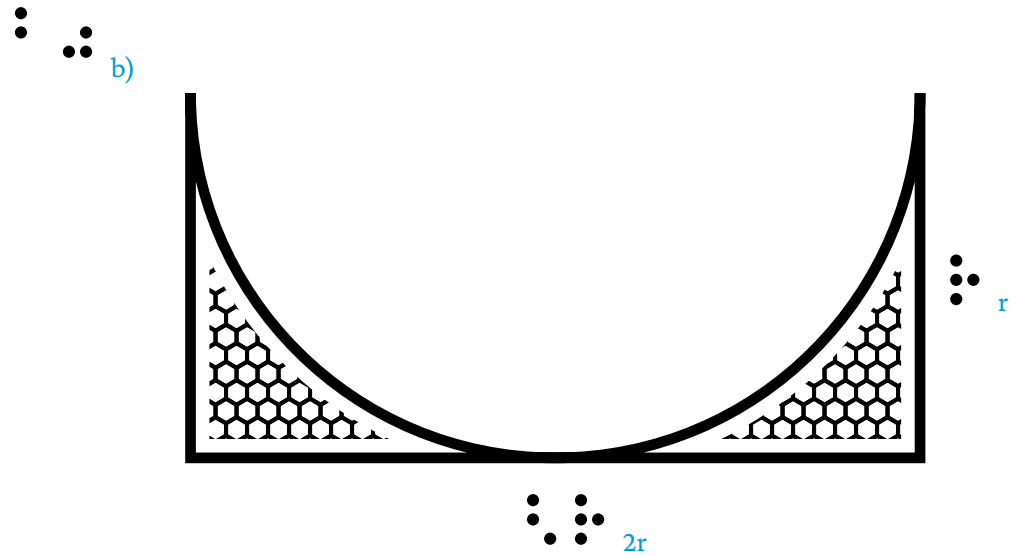
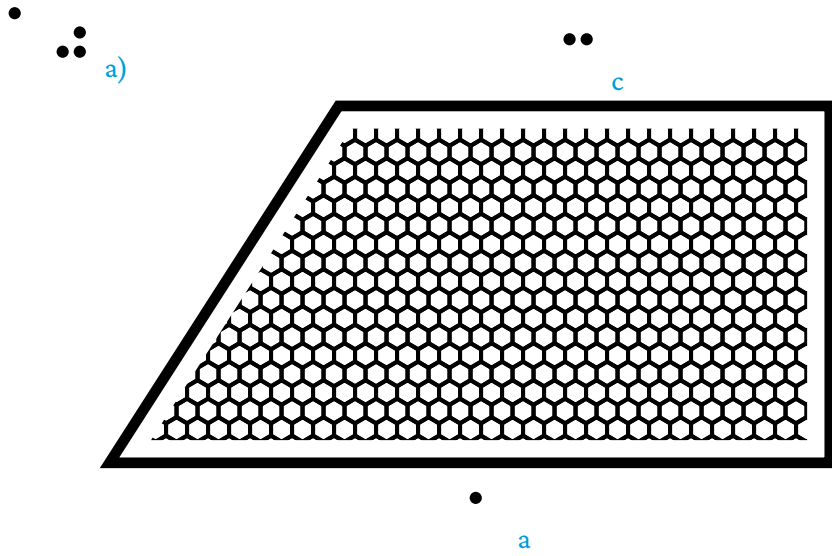
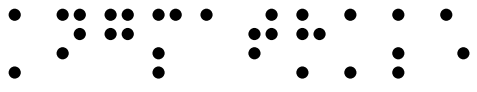
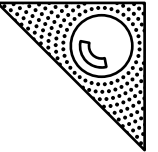


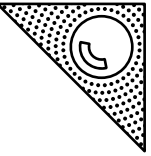
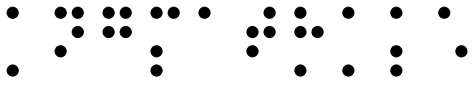
S.47 2.34



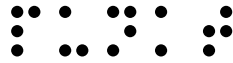
Erklären Sie, wie man mit Hilfe der folgenden Grafik das Distributivgesetz begründen kann.







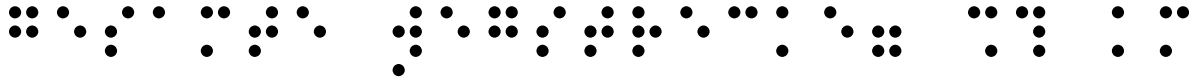
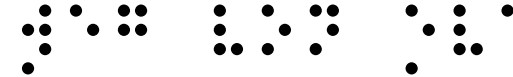
Treffpunkt



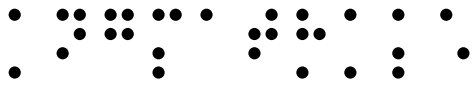
Weg von Judith



Weg von Eva



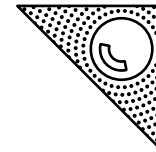
gesamte Wegstrecke= 34 km



AngMatHAK1

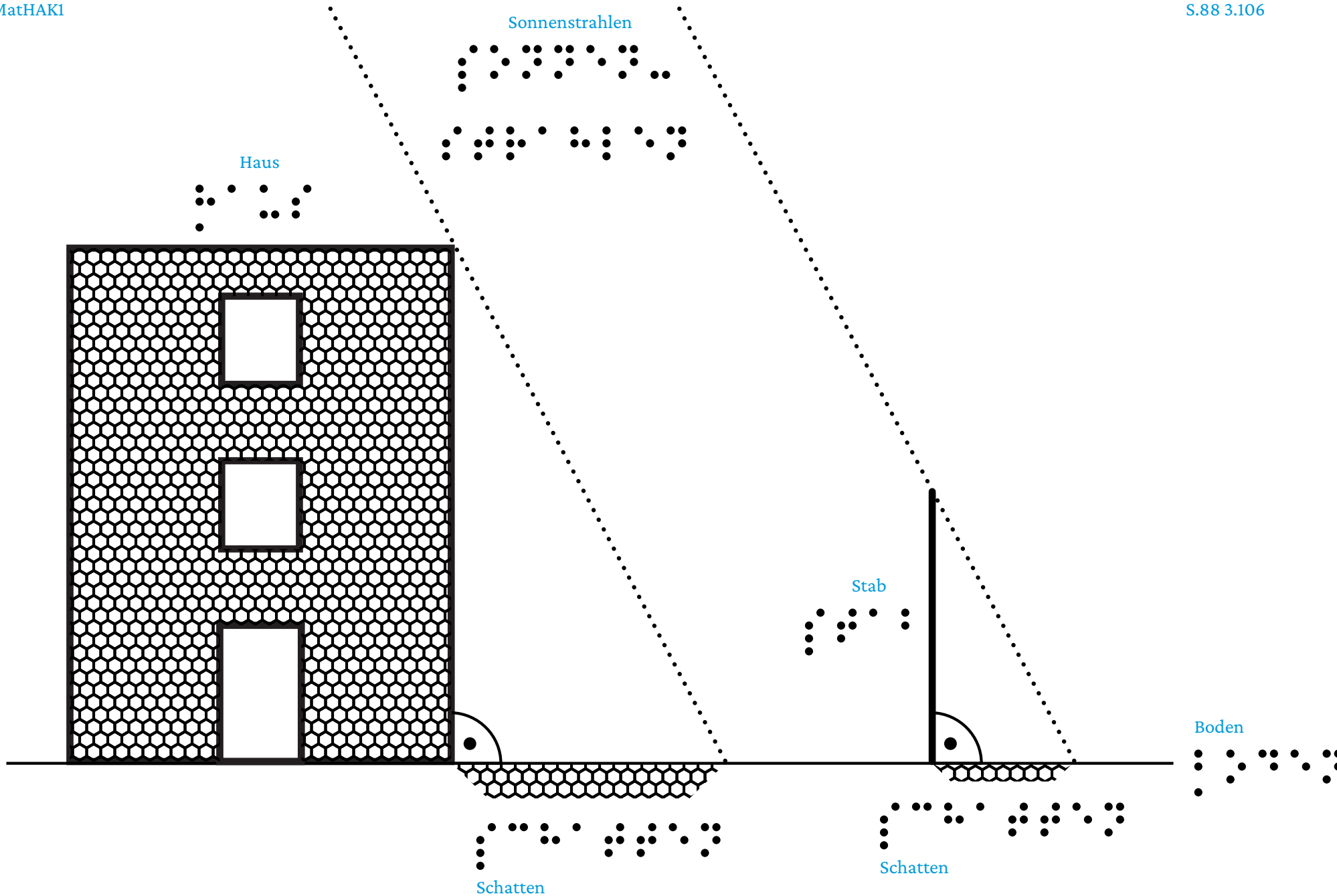


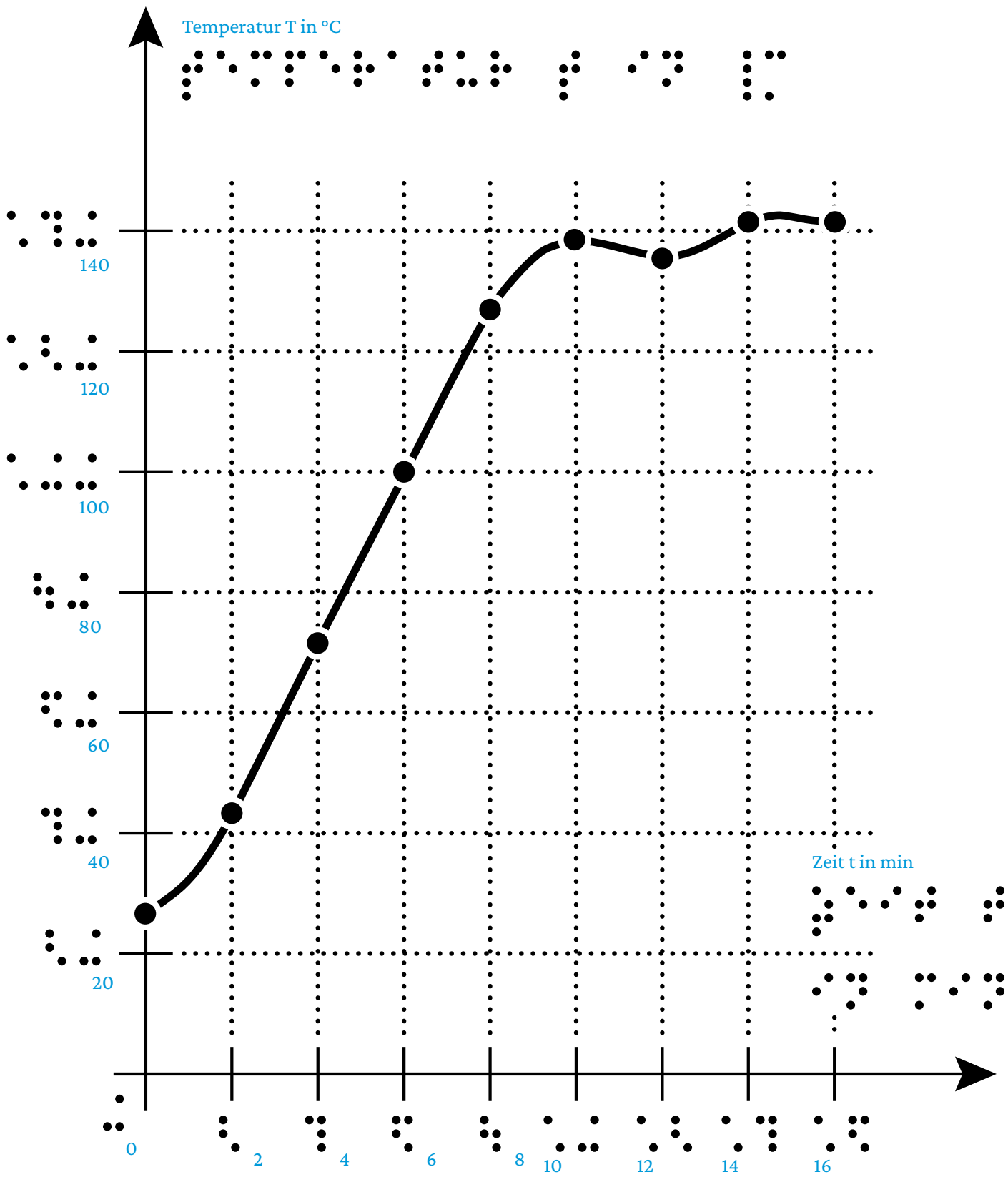
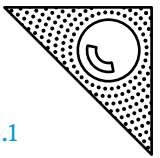
S.88 3.106



Sonnenstrahlen

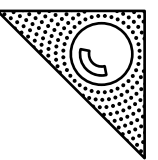
Haus





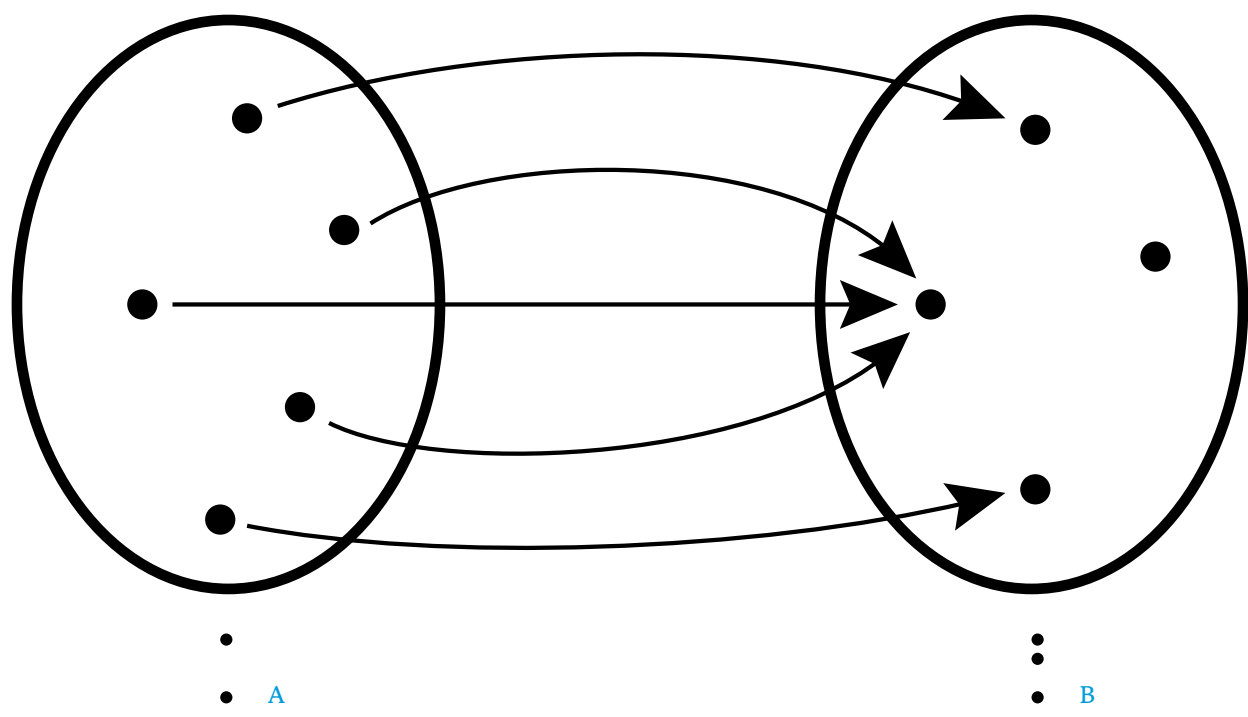
AngMathHAK1

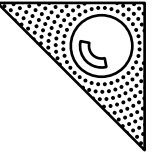
S.98 Funktion: Definition



... ..
... ..
... ..
... ..
... ..

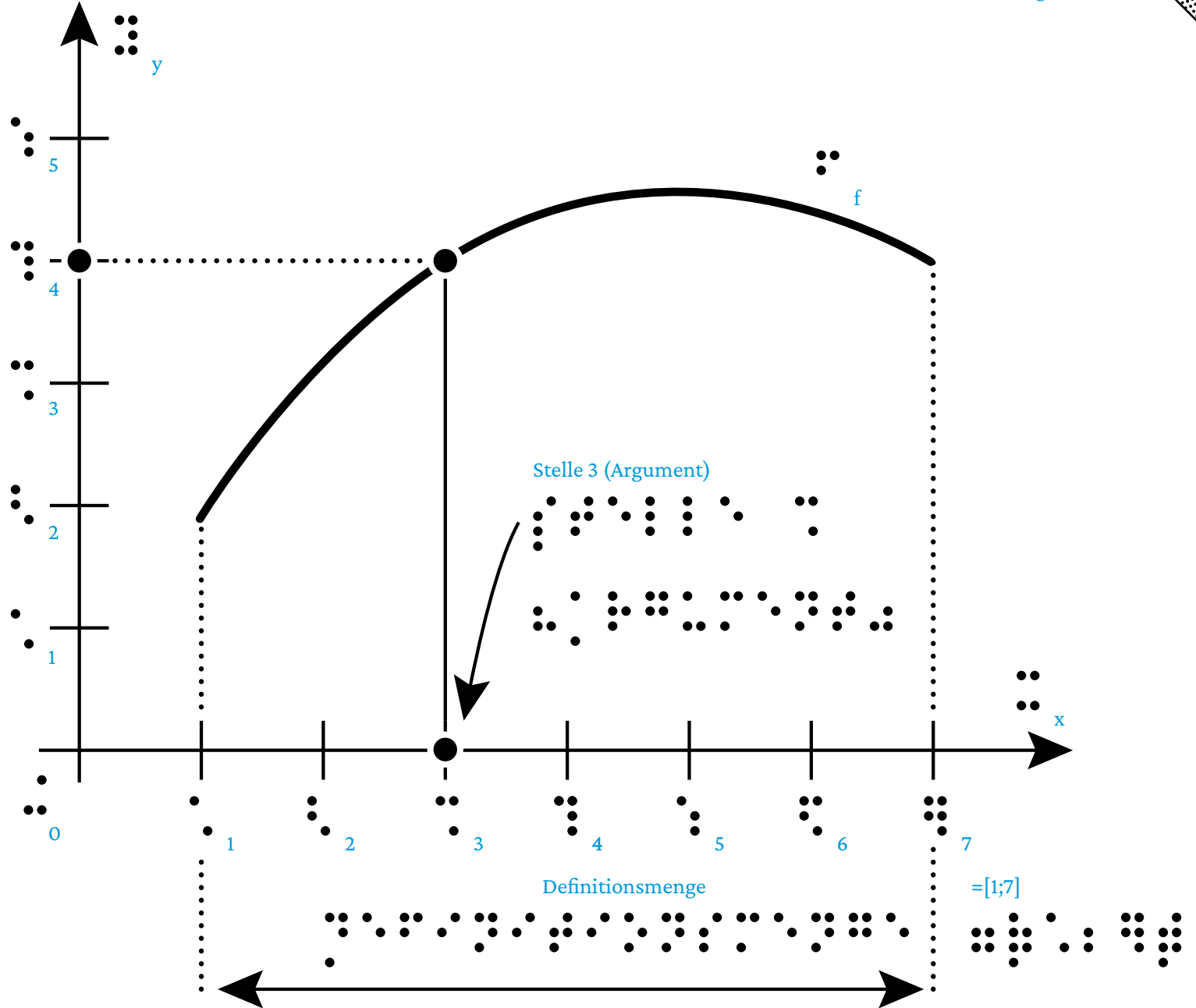
Eine Funktion ist eine eindeutige Zuordnung. Jedem Element x einer Menge A (Definitionsmenge) wird dabei ein Element einer Menge B (Zielmenge) zugeordnet.





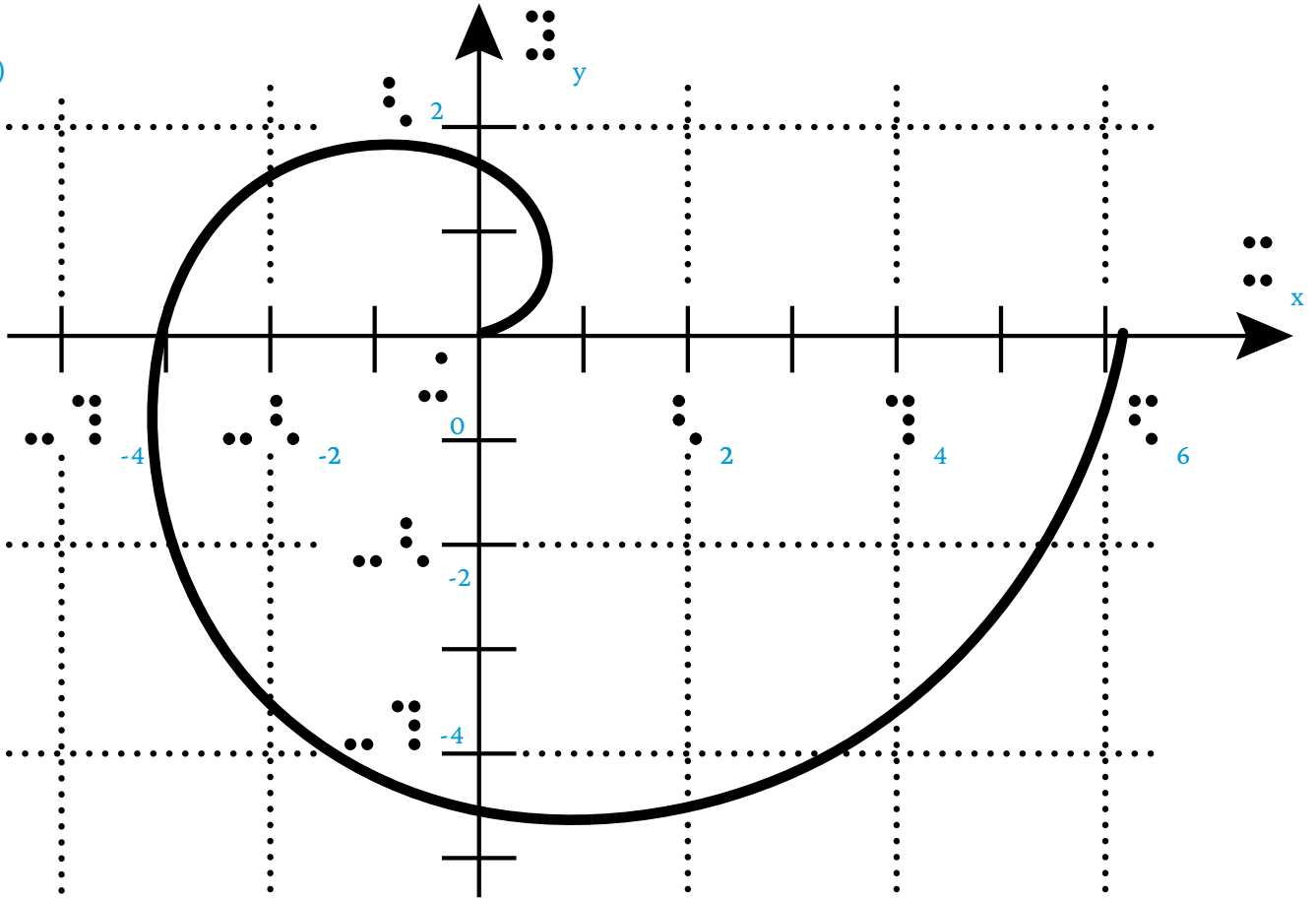
Funktionswert an der Stelle 3, $f(3) = 4$

f... Name der Funktion

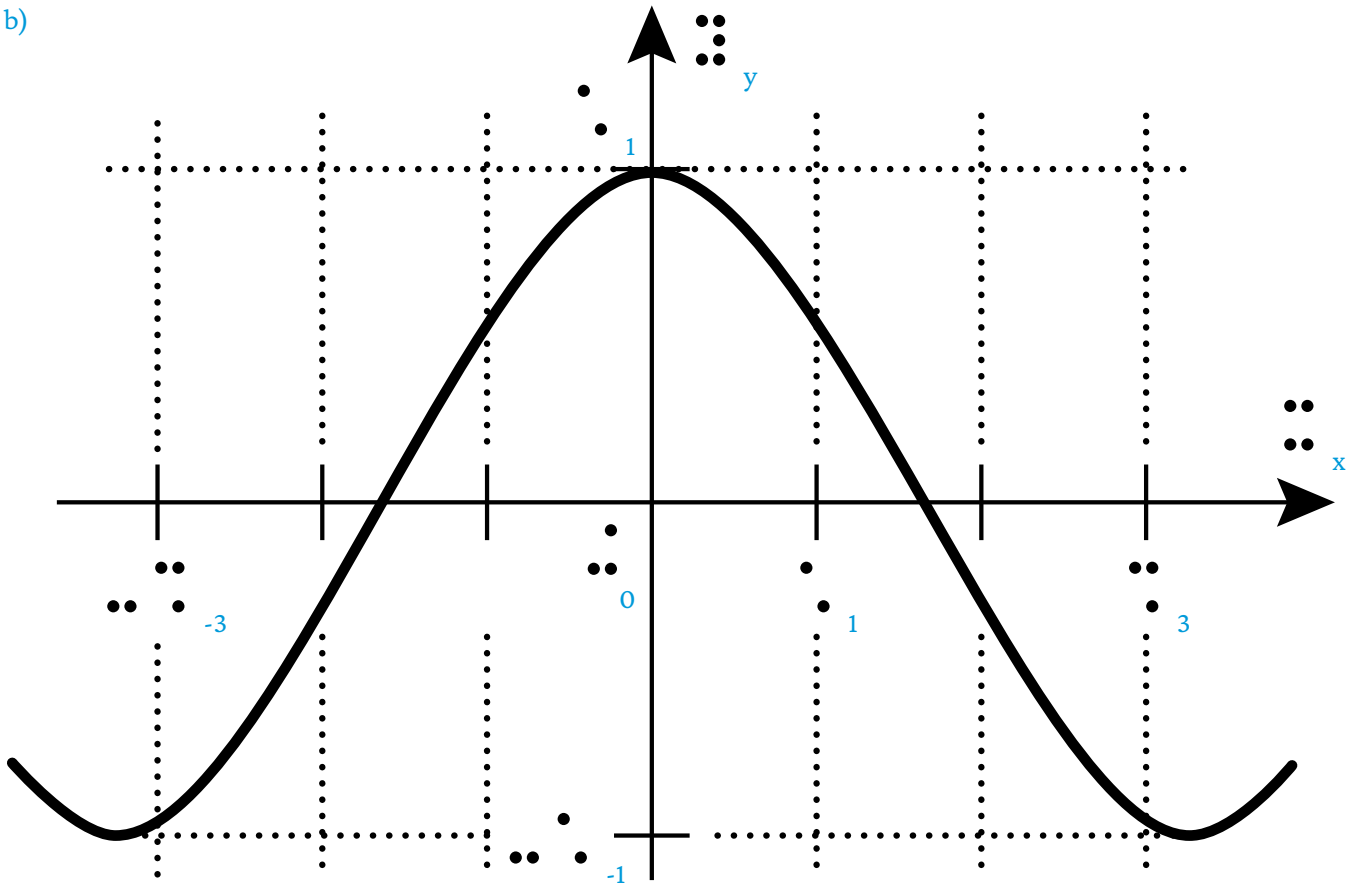


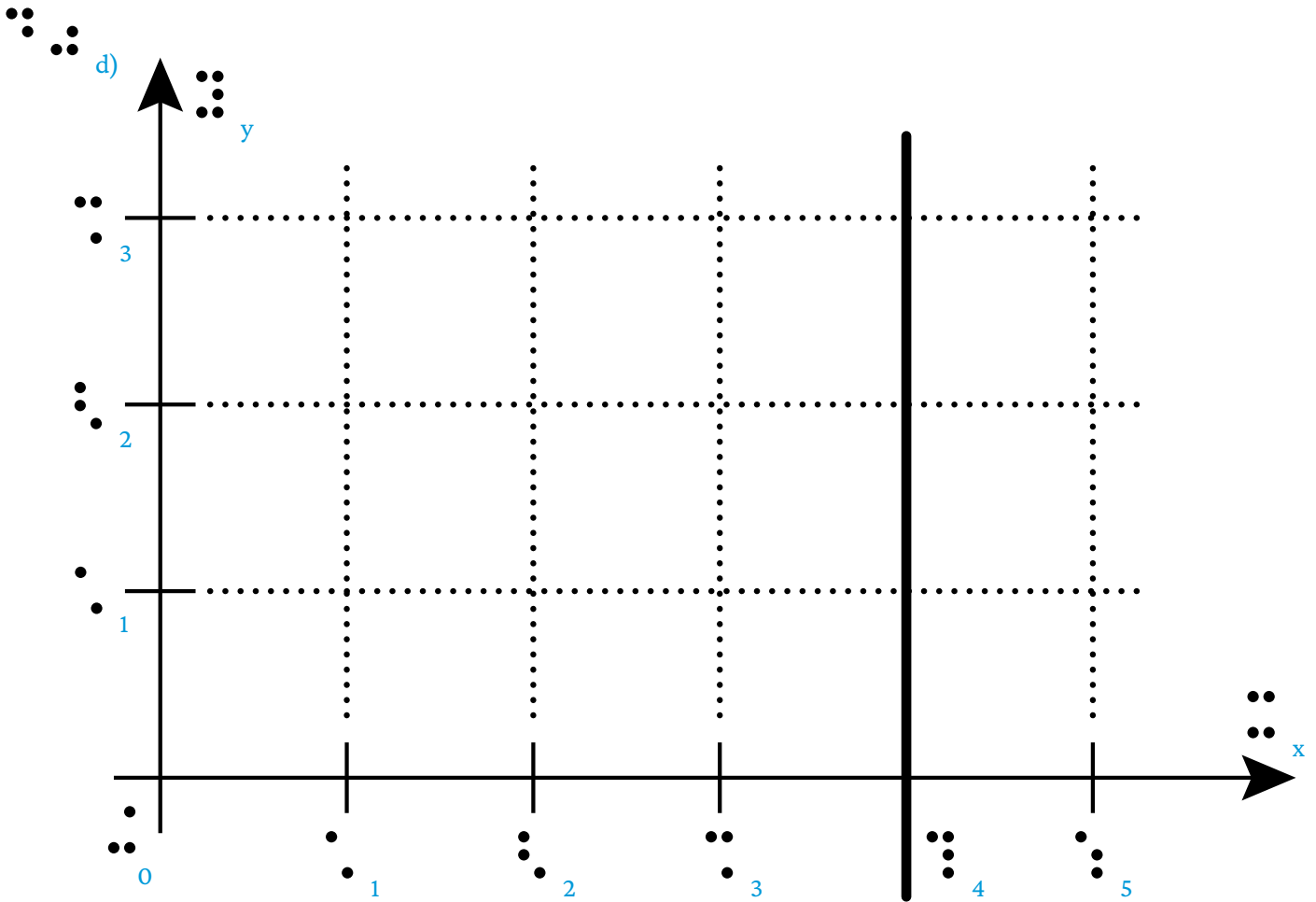
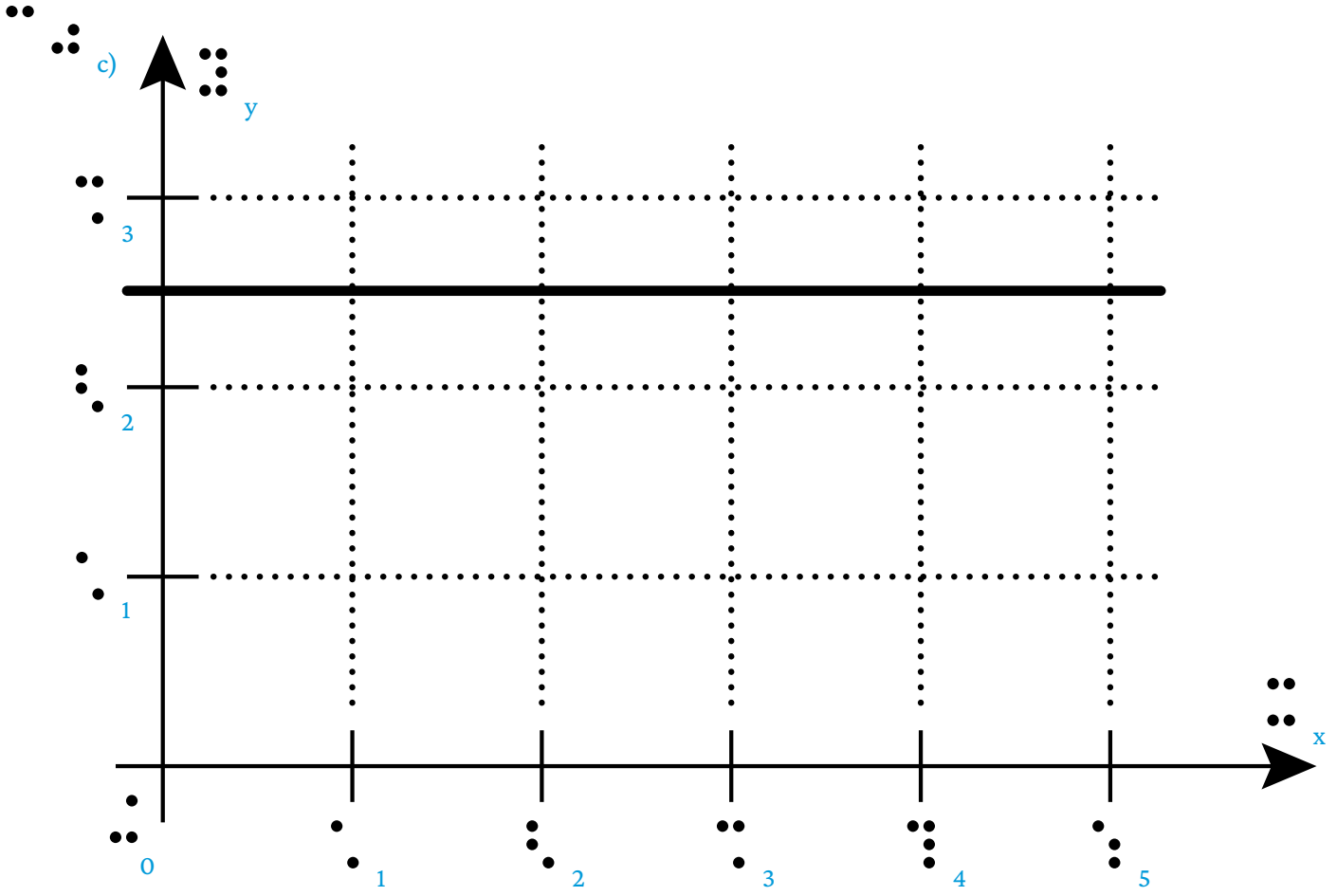
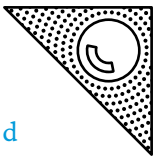
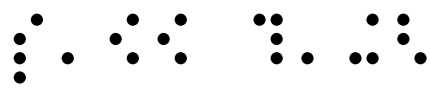
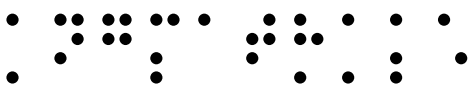


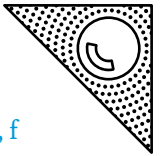
a)



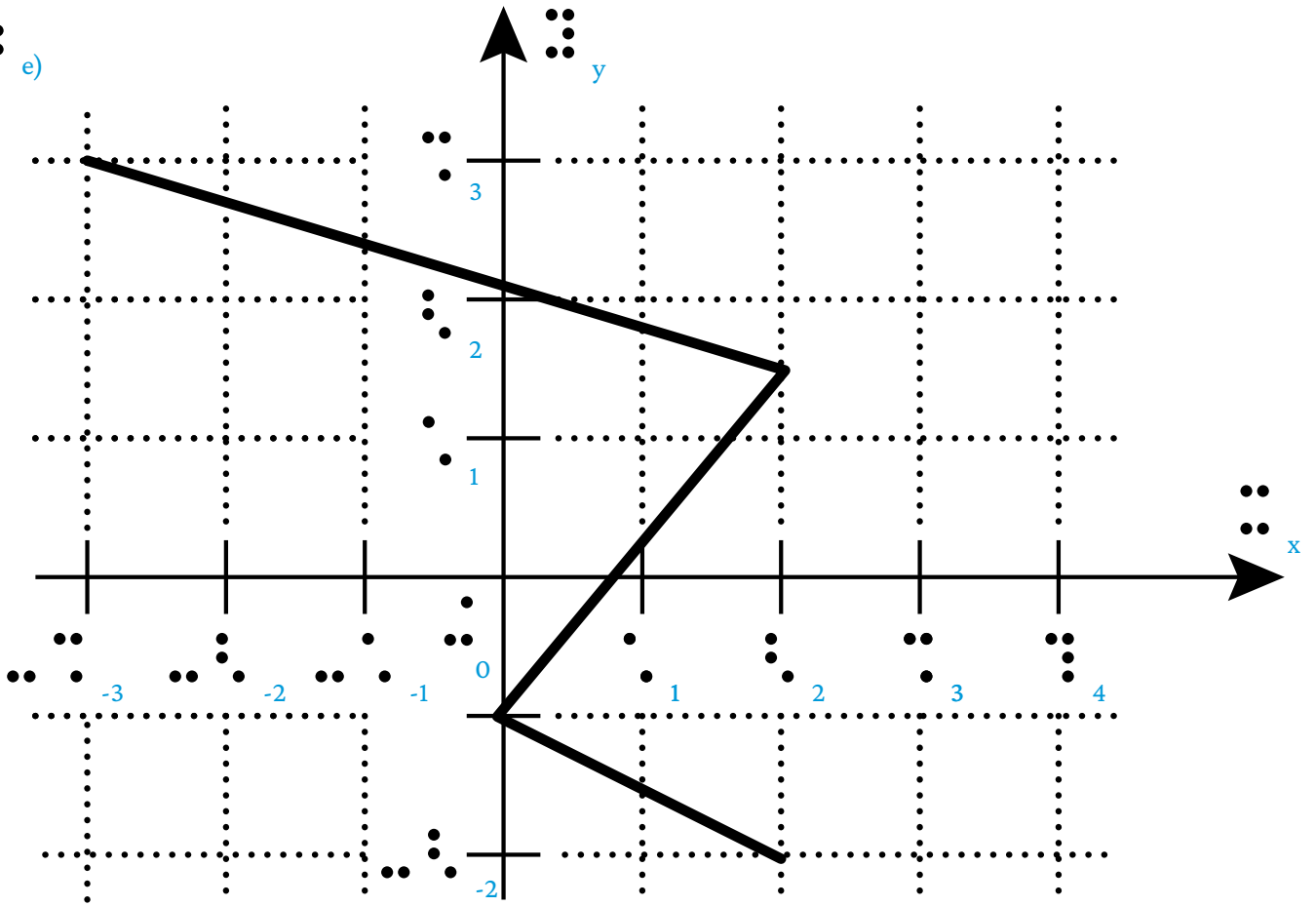
b)



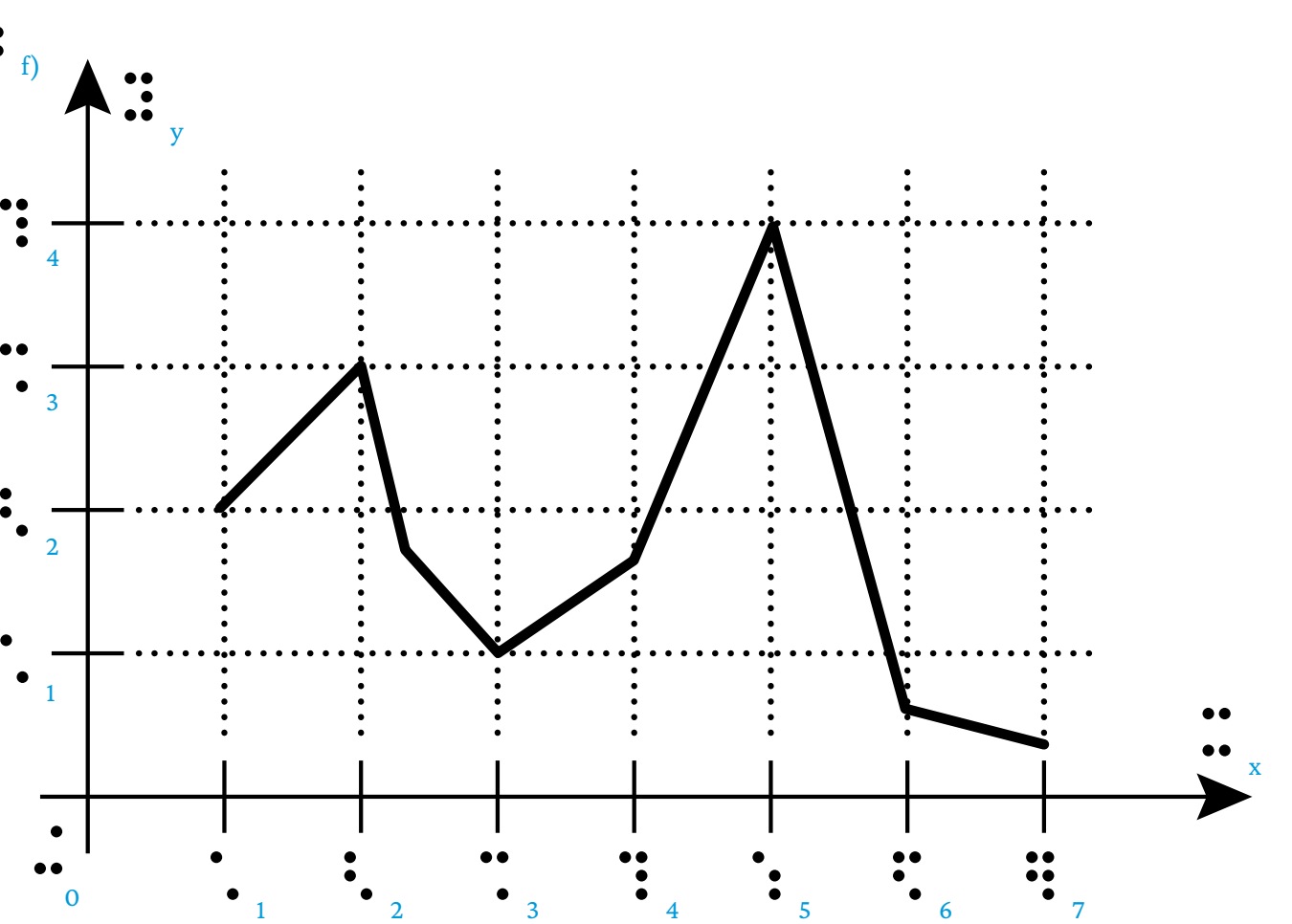


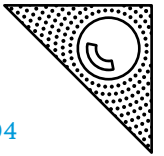
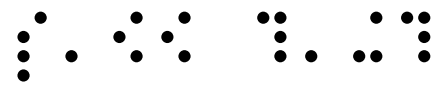
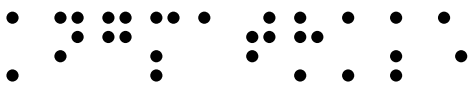


e)

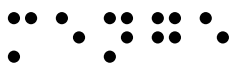
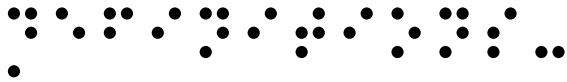
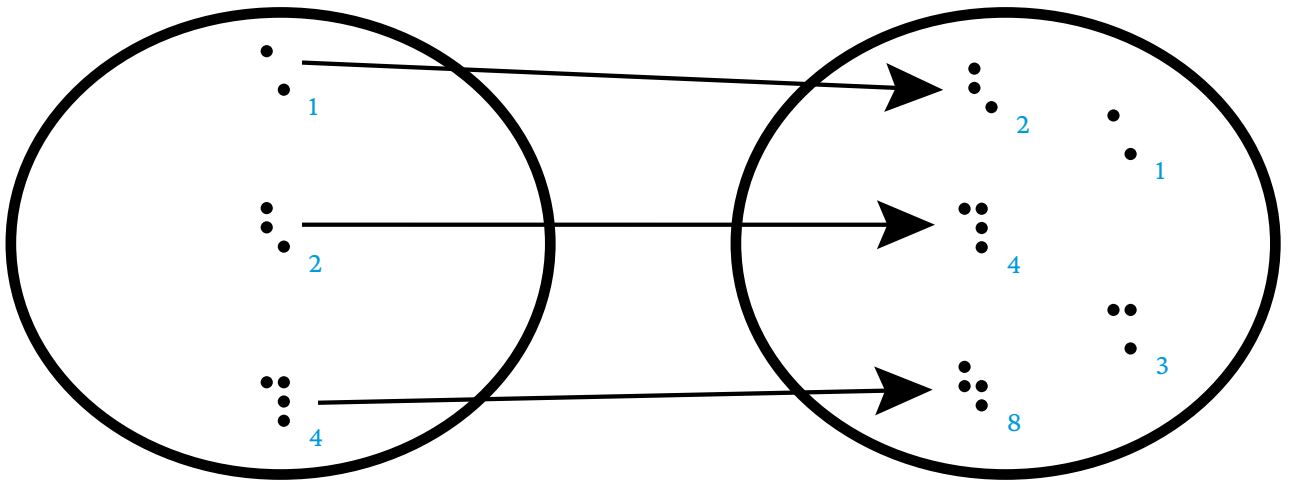


f)





a)

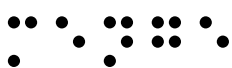
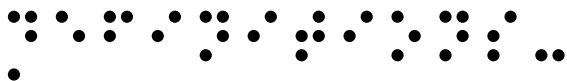
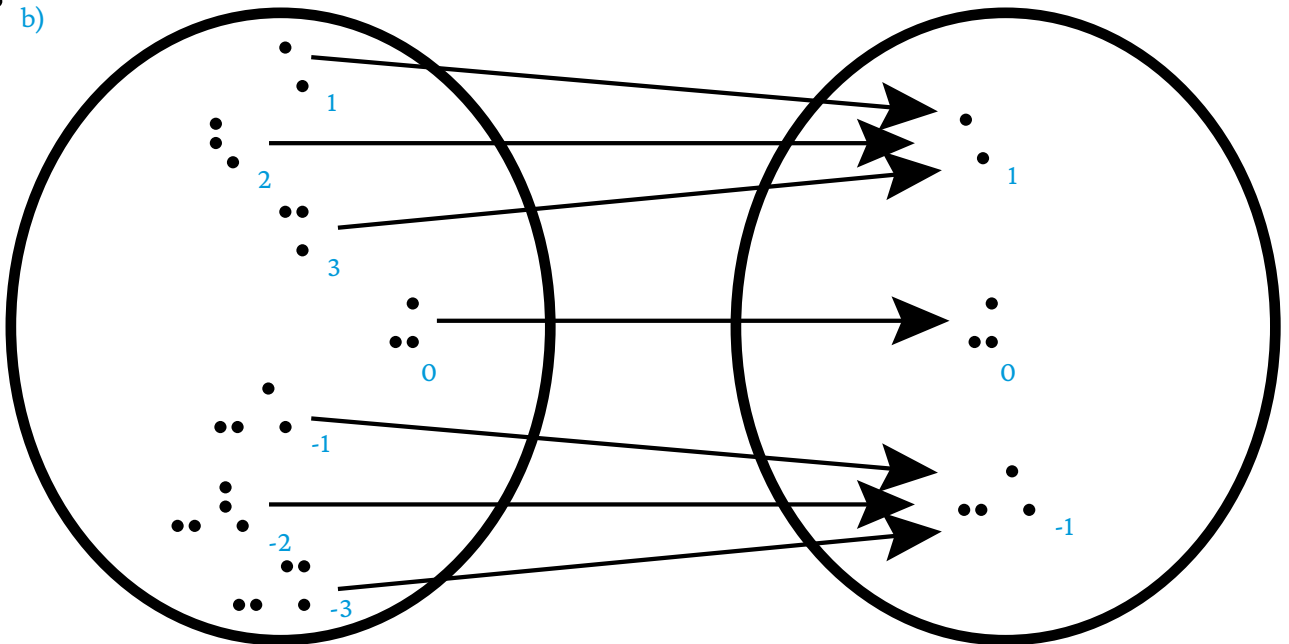


Definitionsmenge

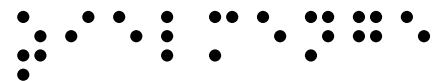


Zielmenge

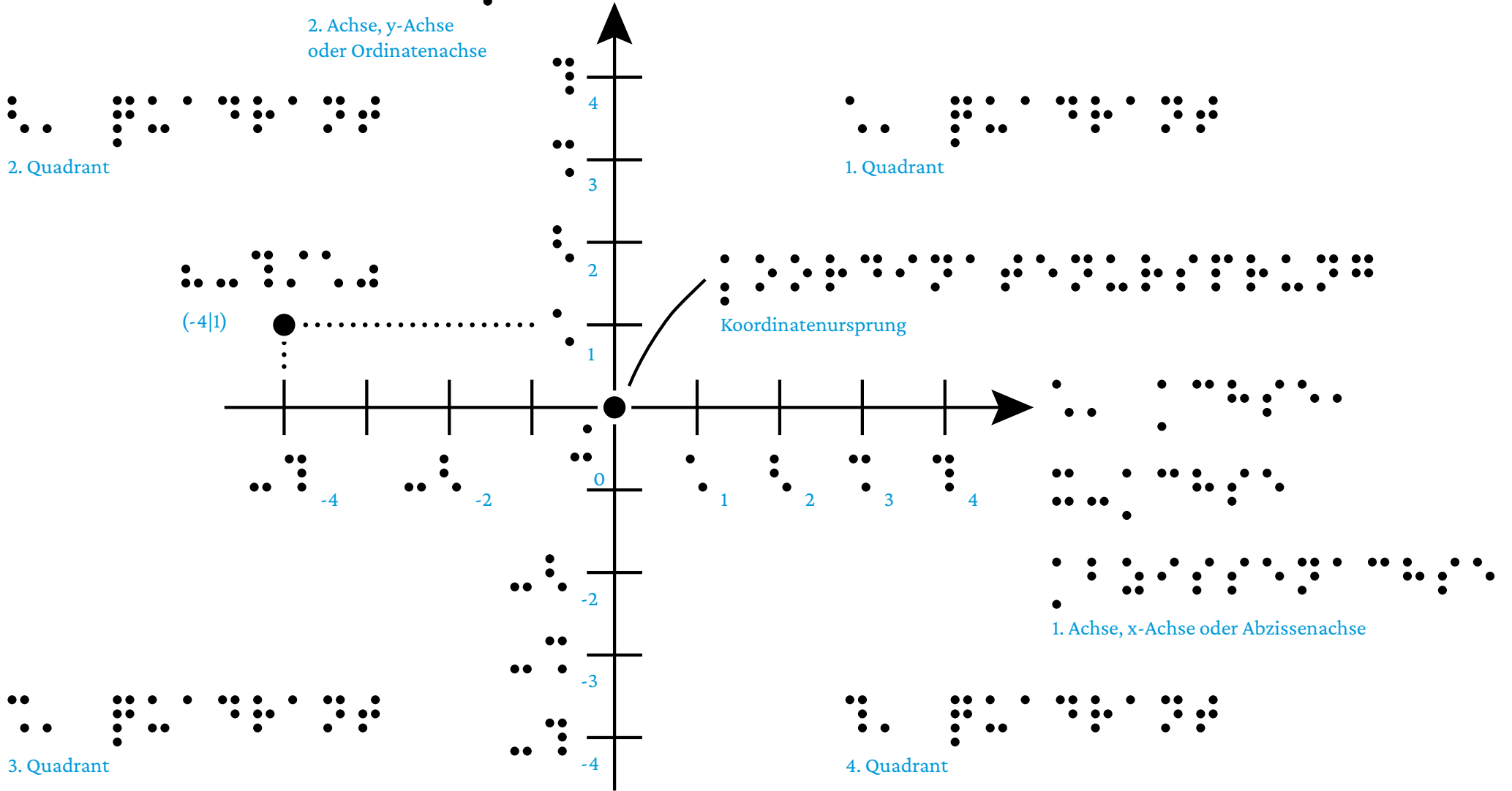
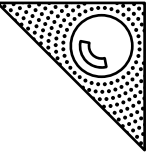
b)

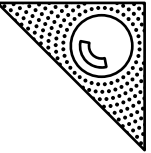


Definitionsmenge

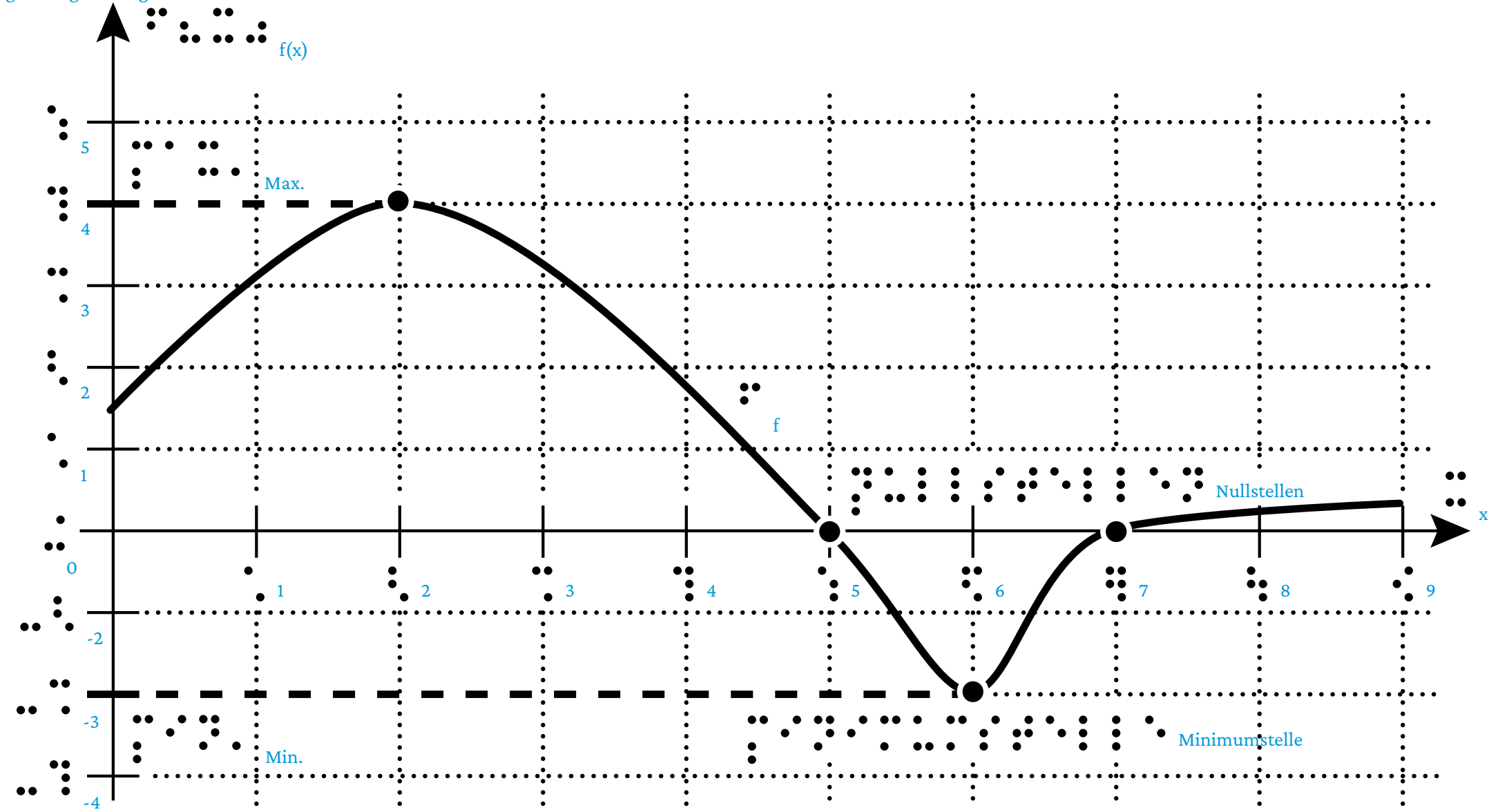


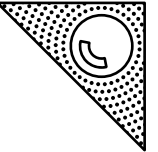
Zielmenge





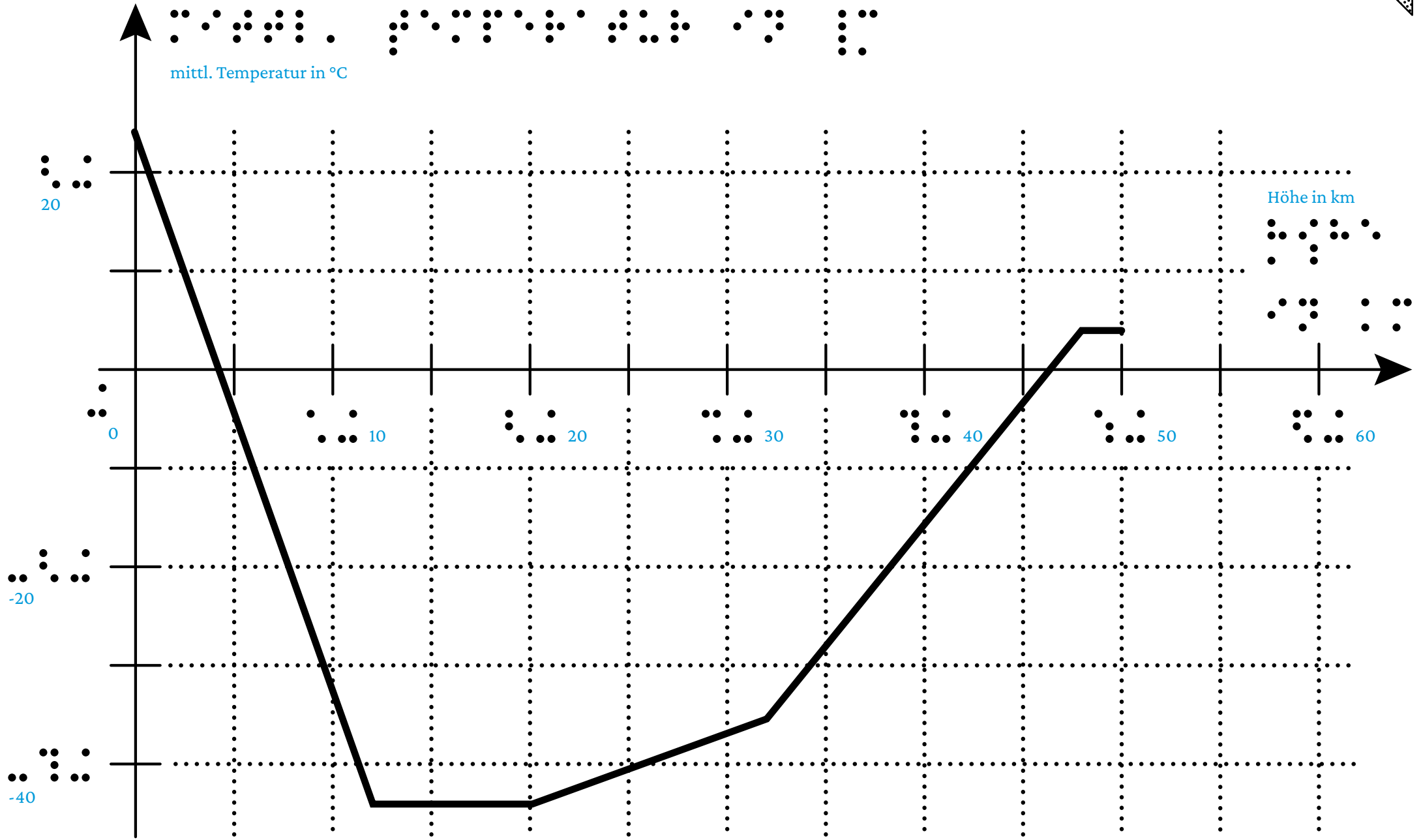
grundlegende Eig. reeller Funktionen

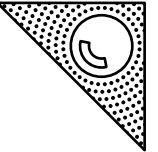




mittl. Temperatur in °C

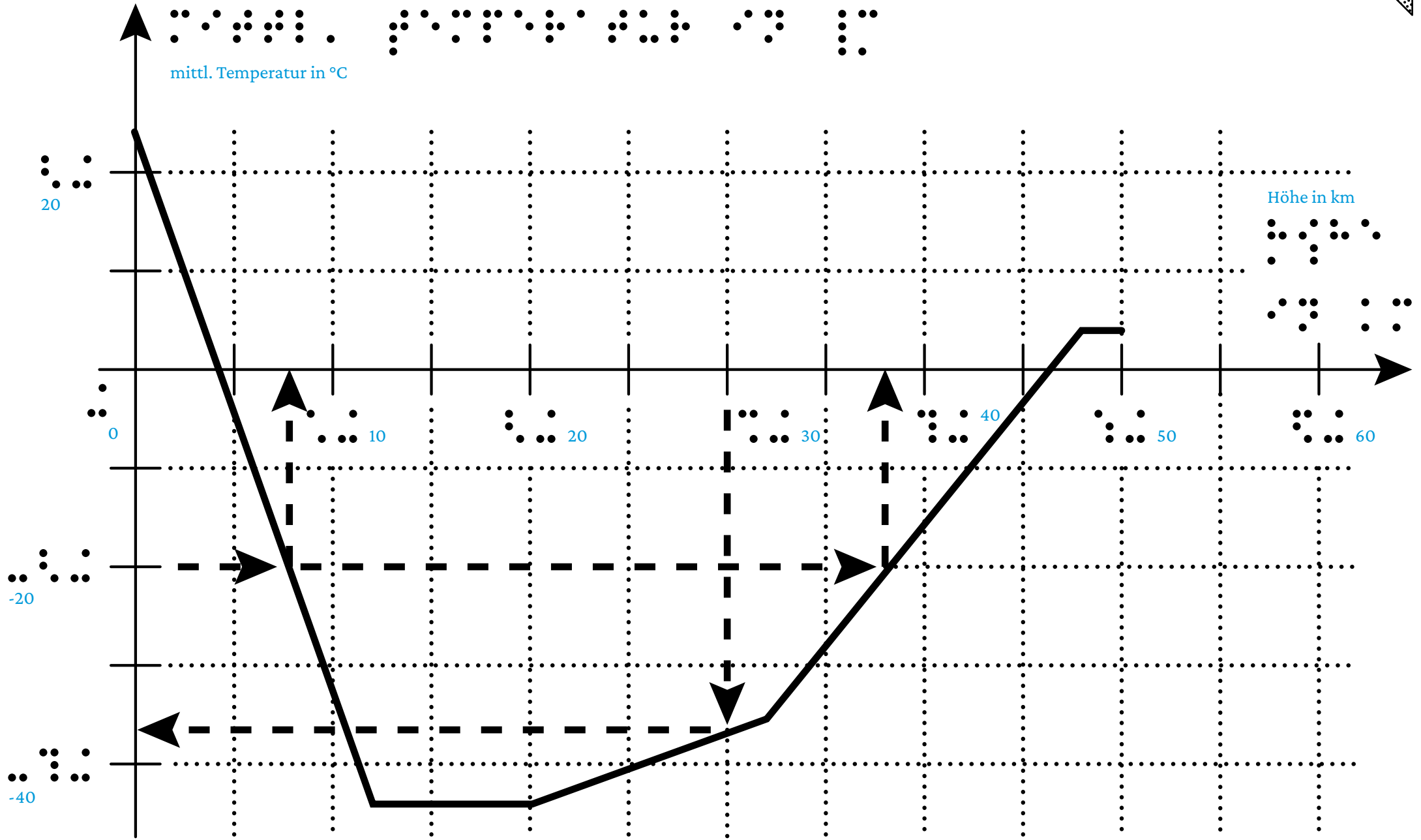
Höhe in km

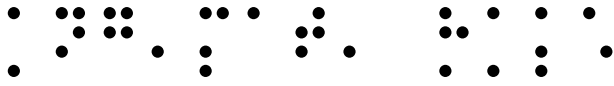
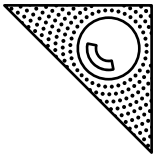




mittl. Temperatur in °C

Höhe in km





Ang.Mat. HAK1

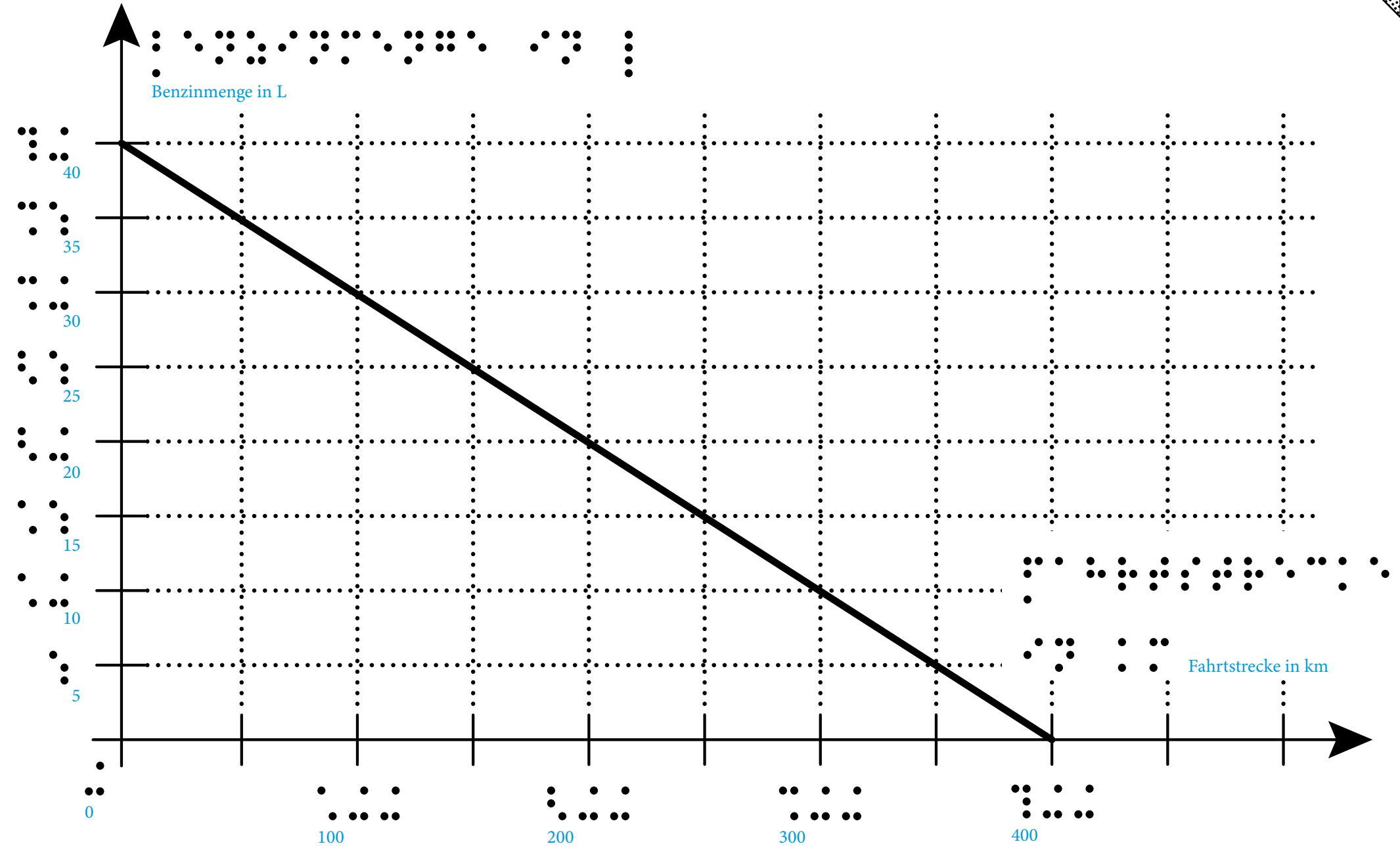
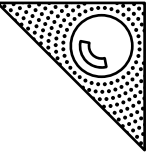


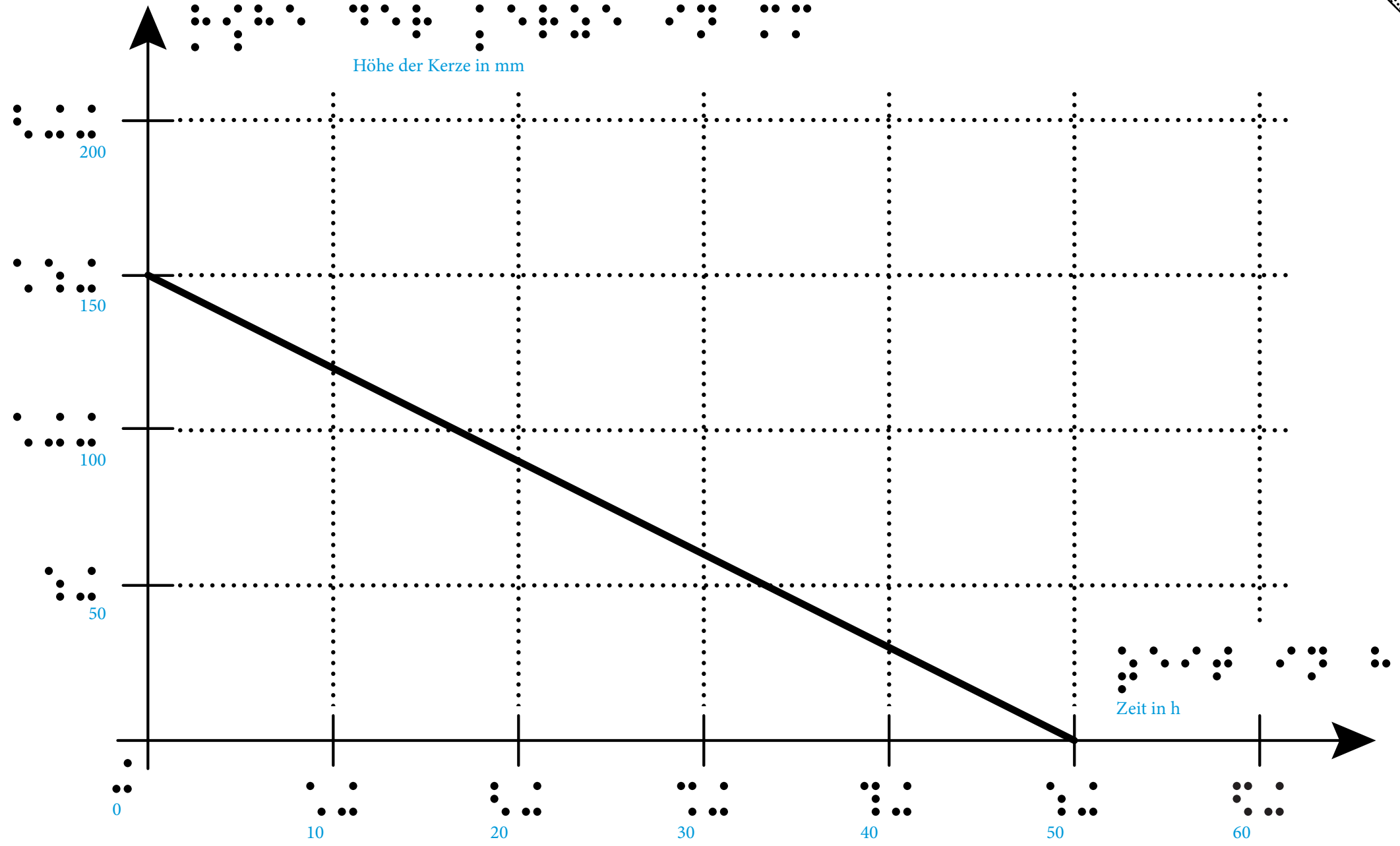
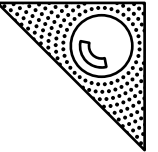
Teil 2, Seiten 119-134

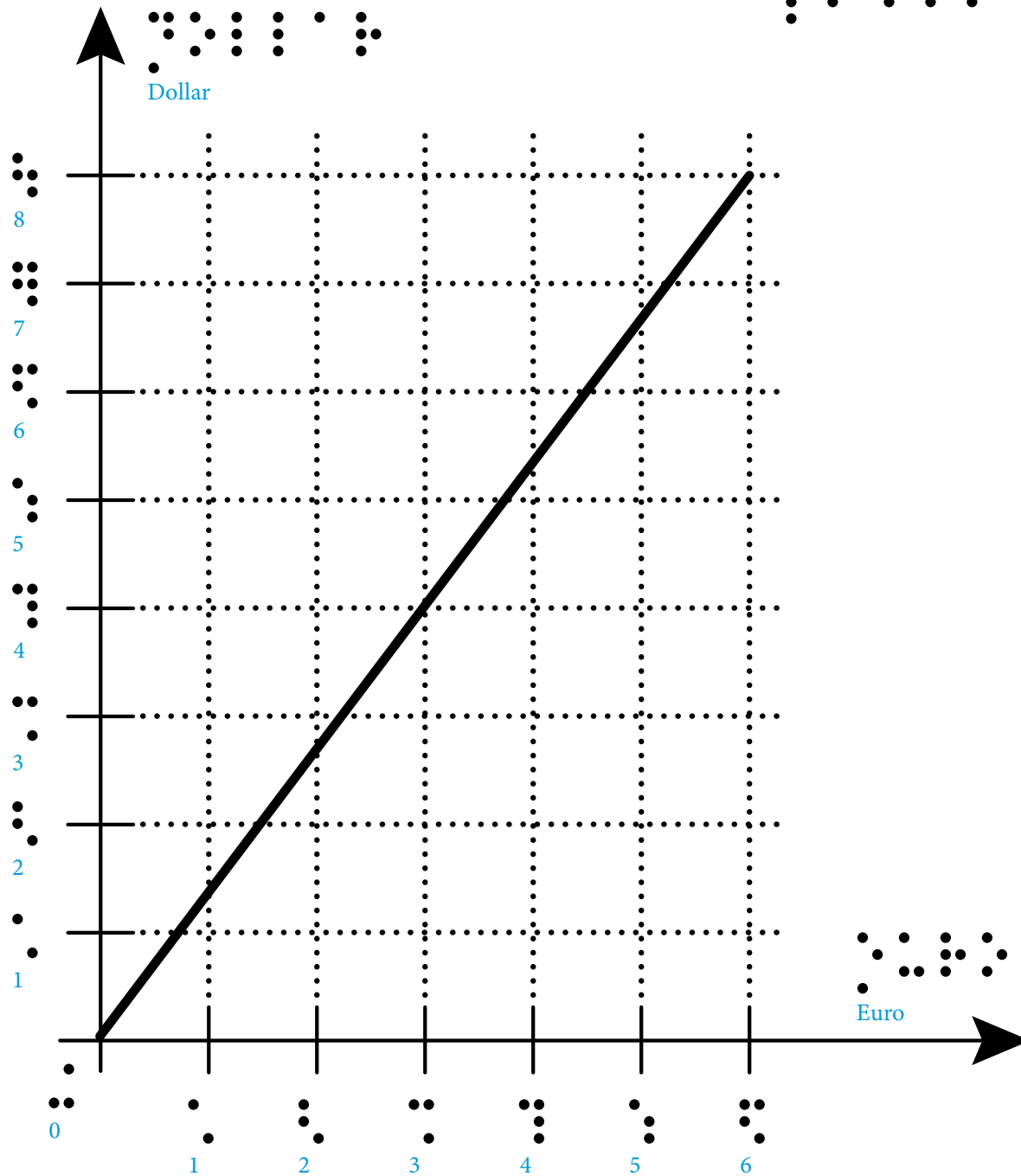
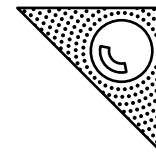
Angewandte Mathematik

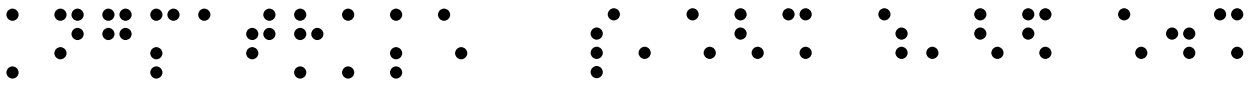
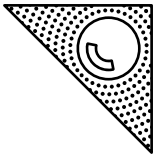
HAK Band 1

Teil 2, Seiten 119-134



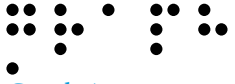




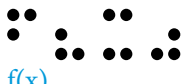


AngMatHAK1

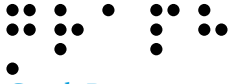
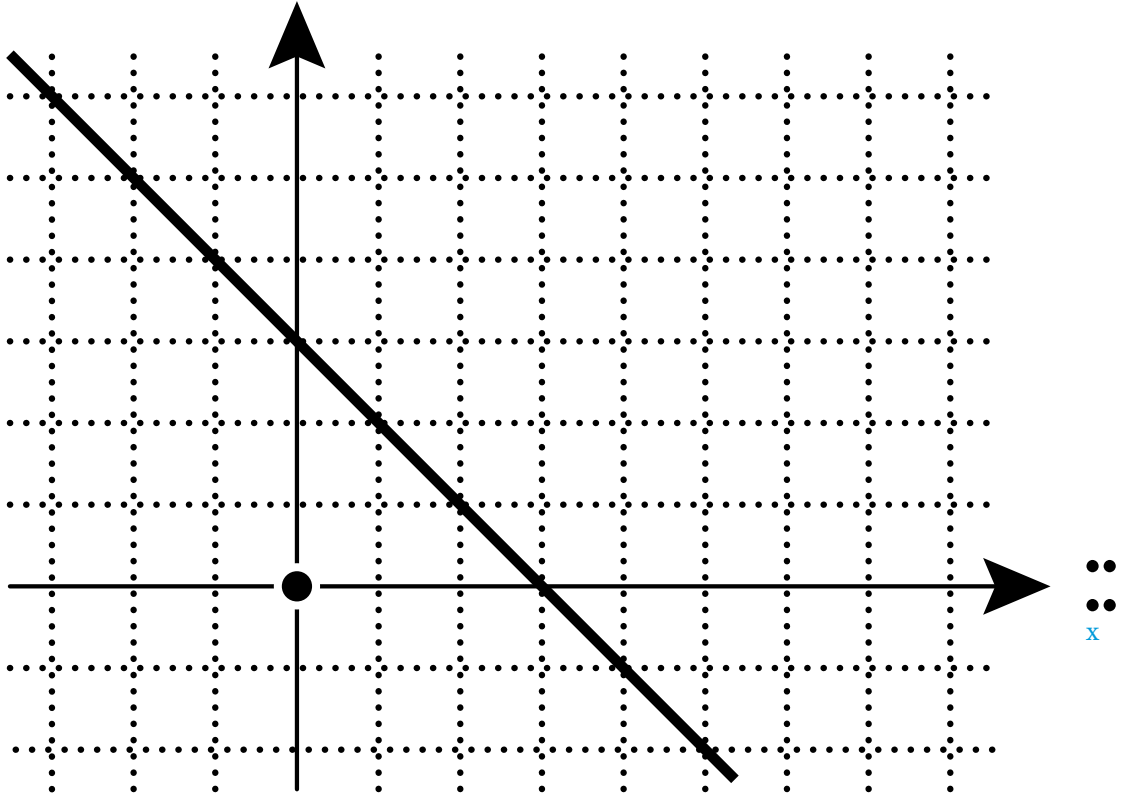
S.123 5.26 1/3



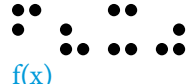
Graph A



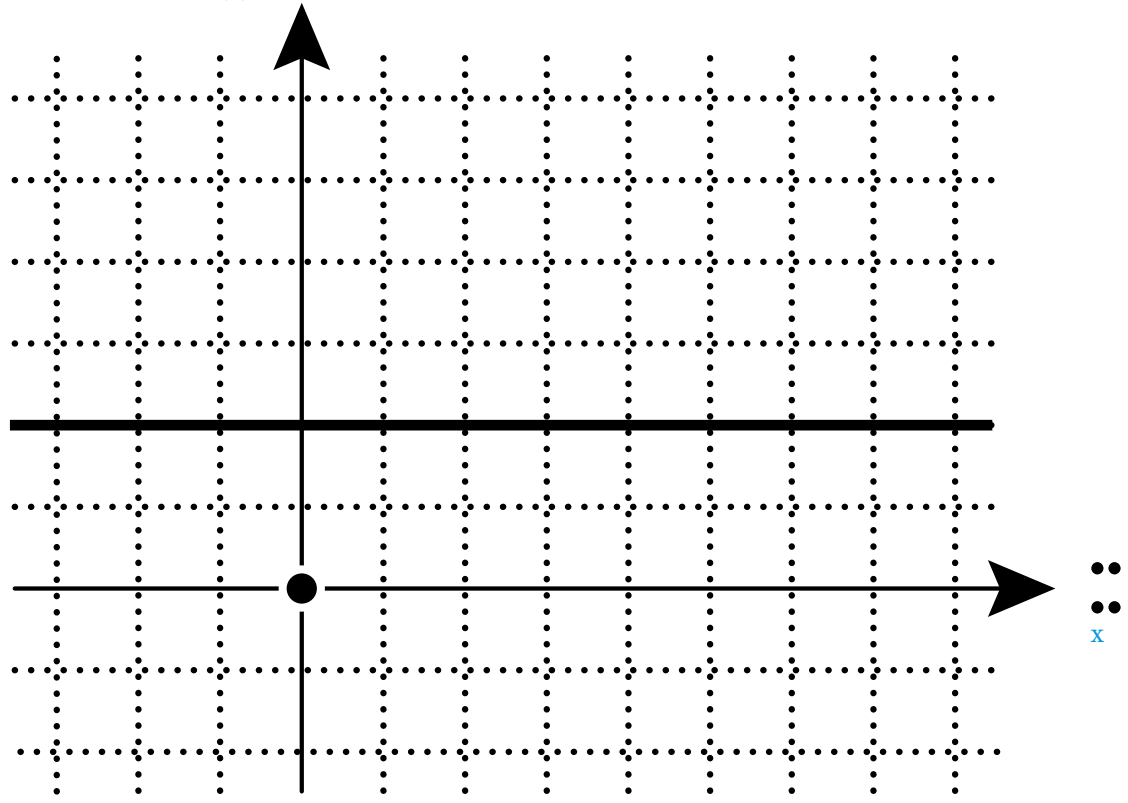
f(x)

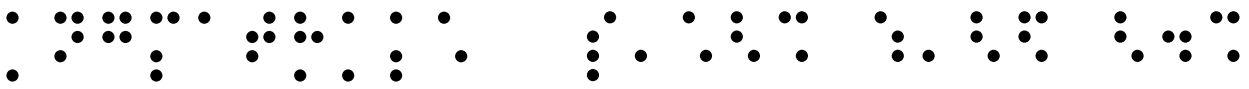


Graph B



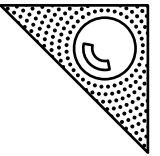
f(x)



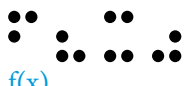


AngMatHAK1

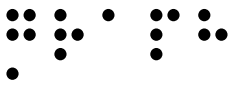
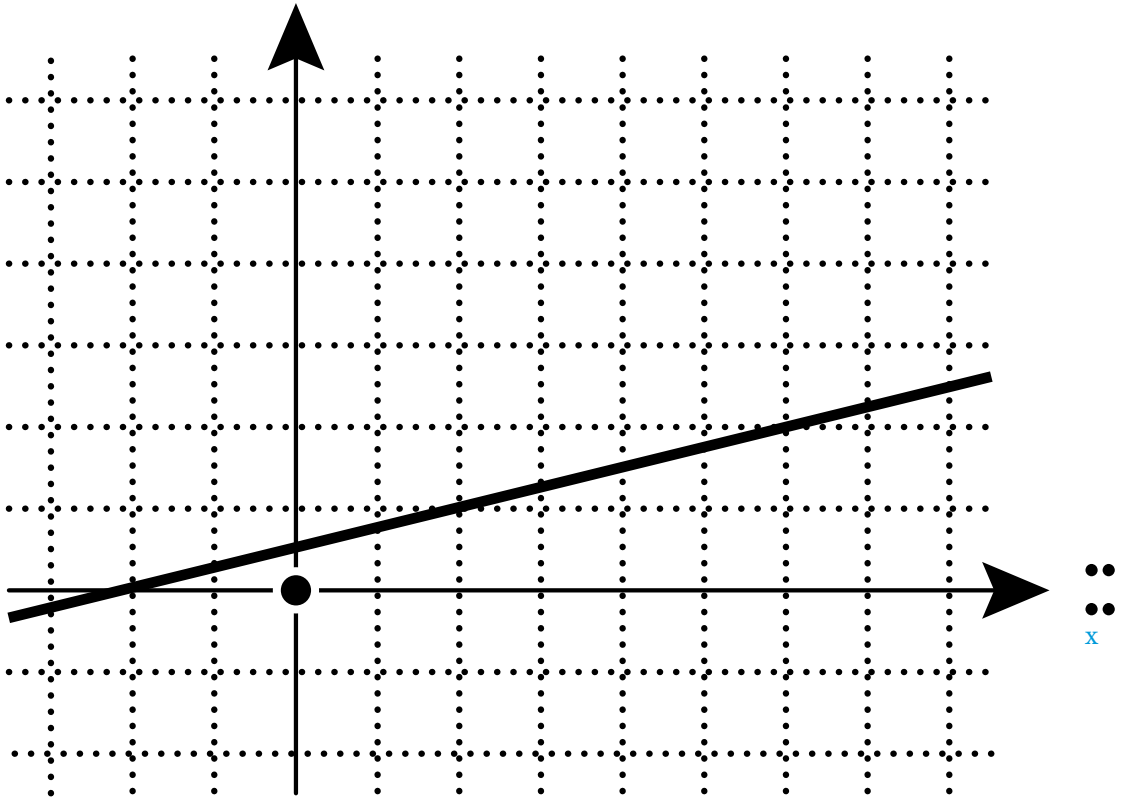
S.123 5.26 2/3



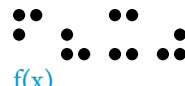
Graph C



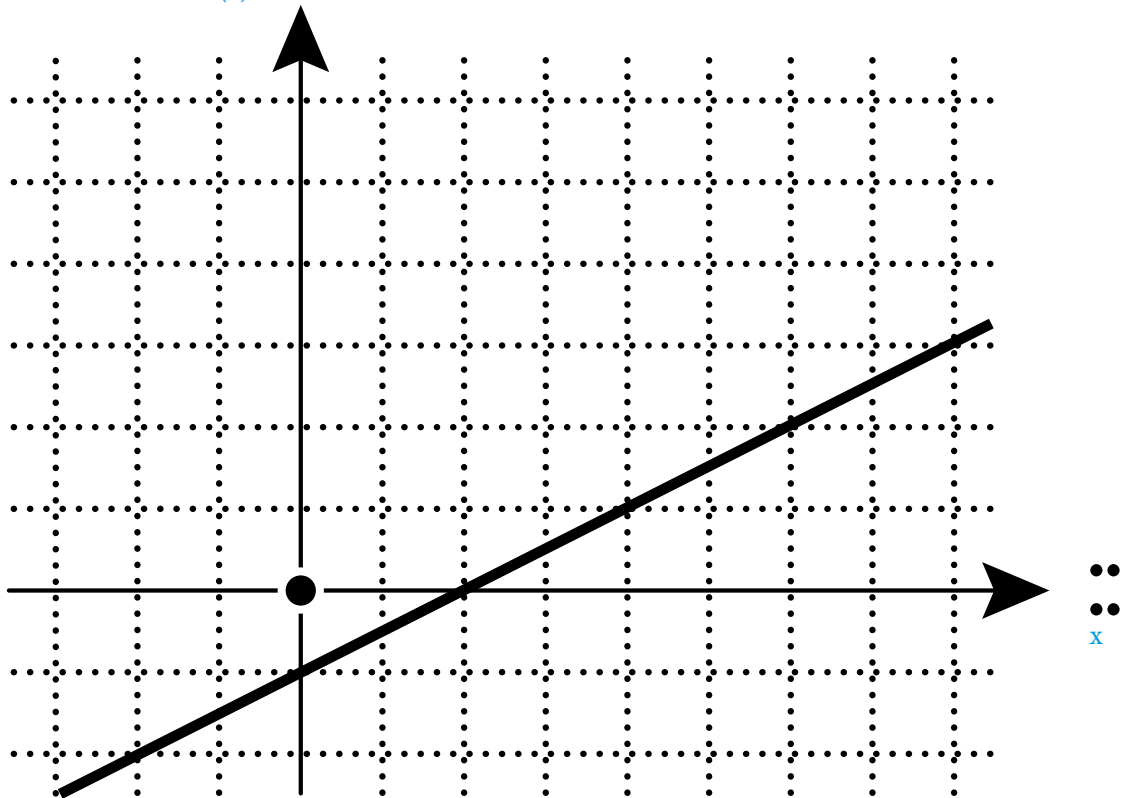
f(x)

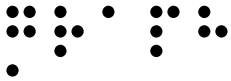
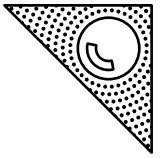
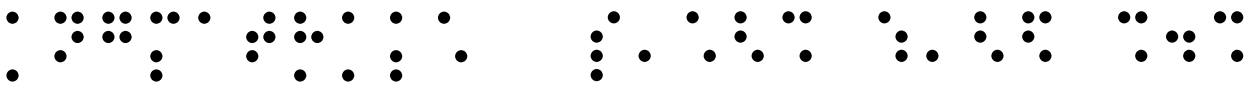


Graph D

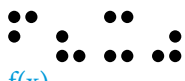


f(x)

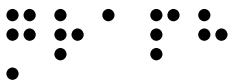
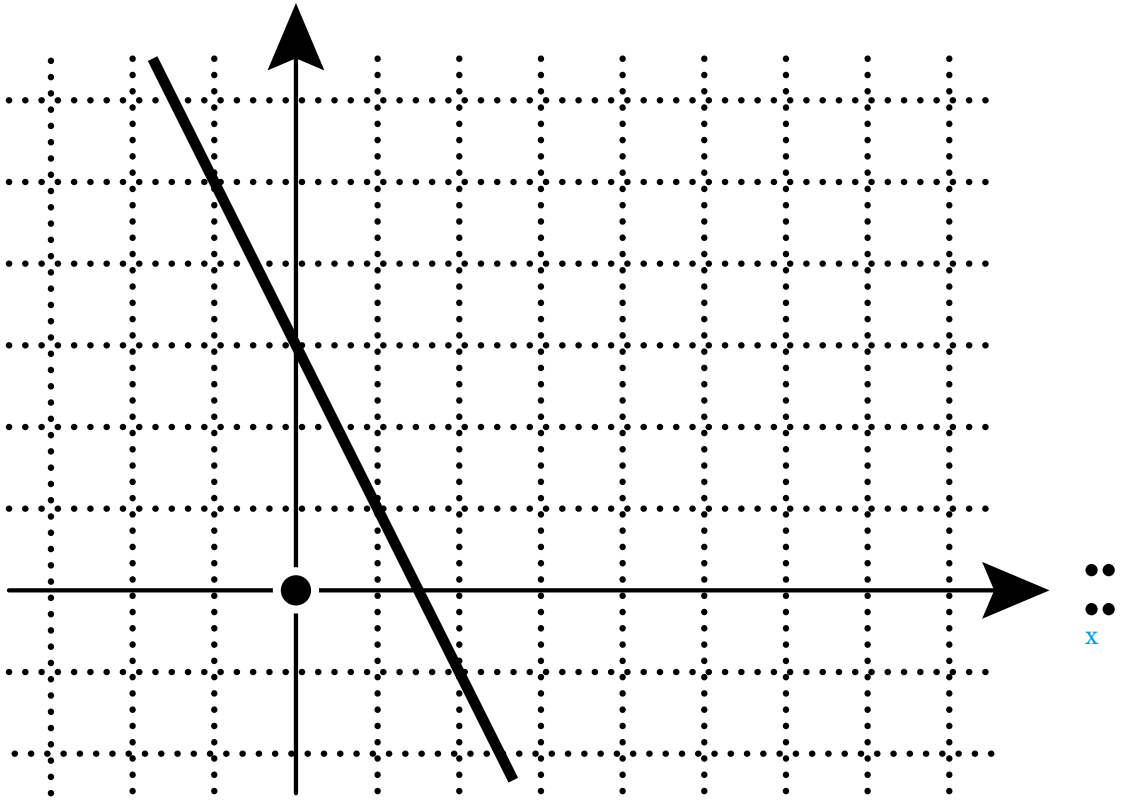




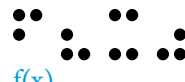
Graph E



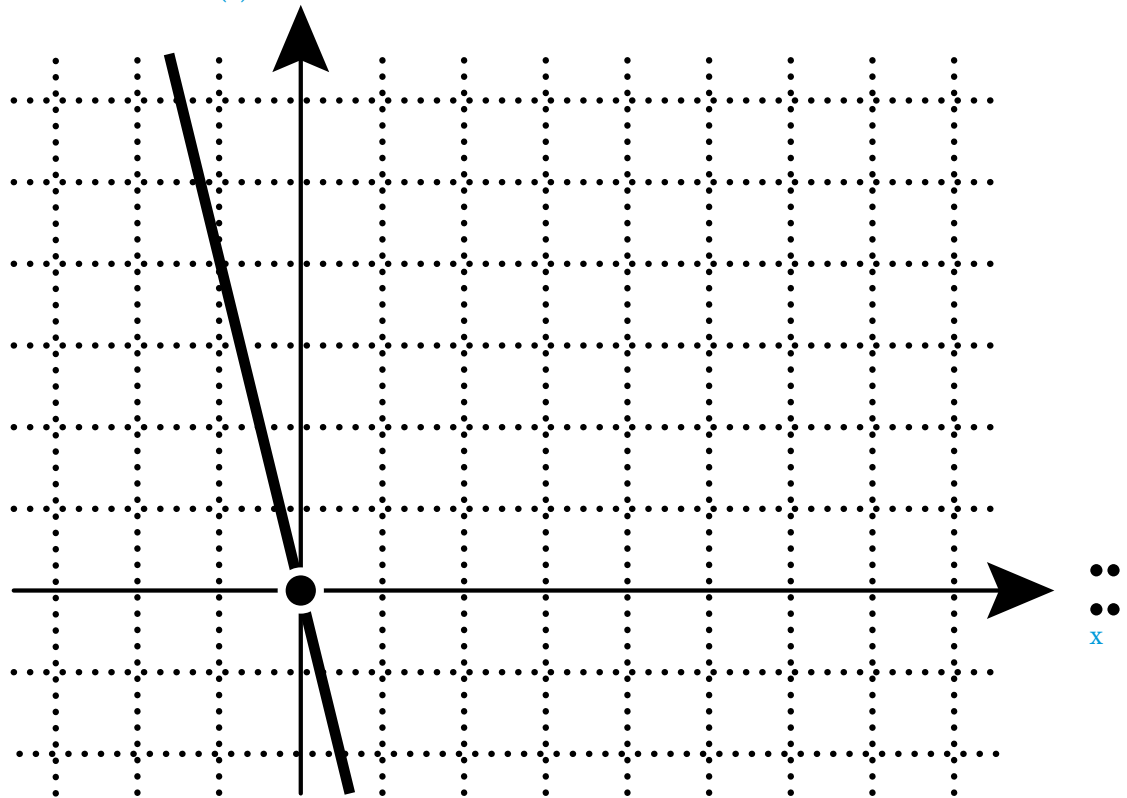
f(x)

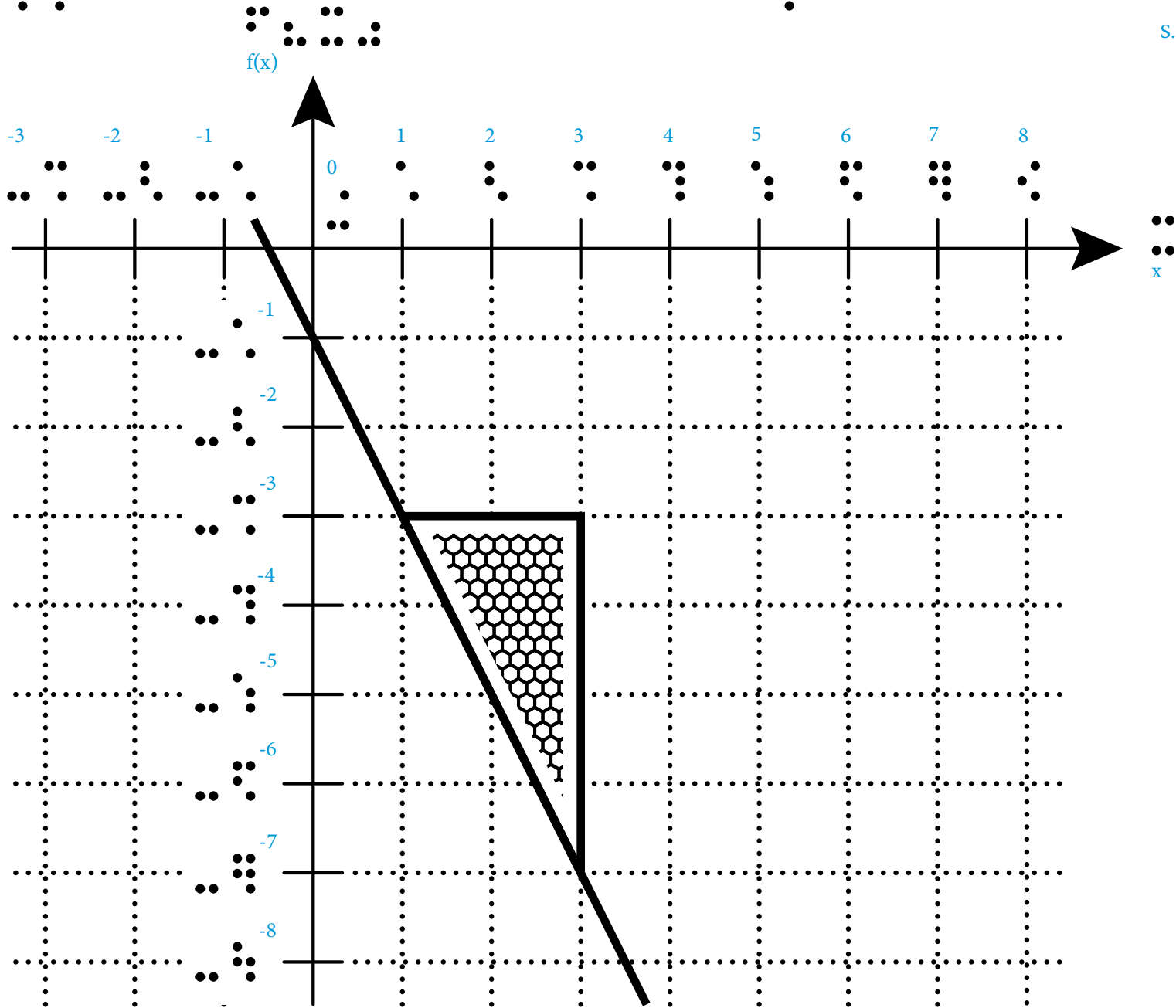
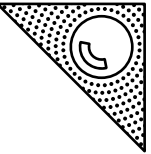


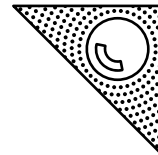
Graph F



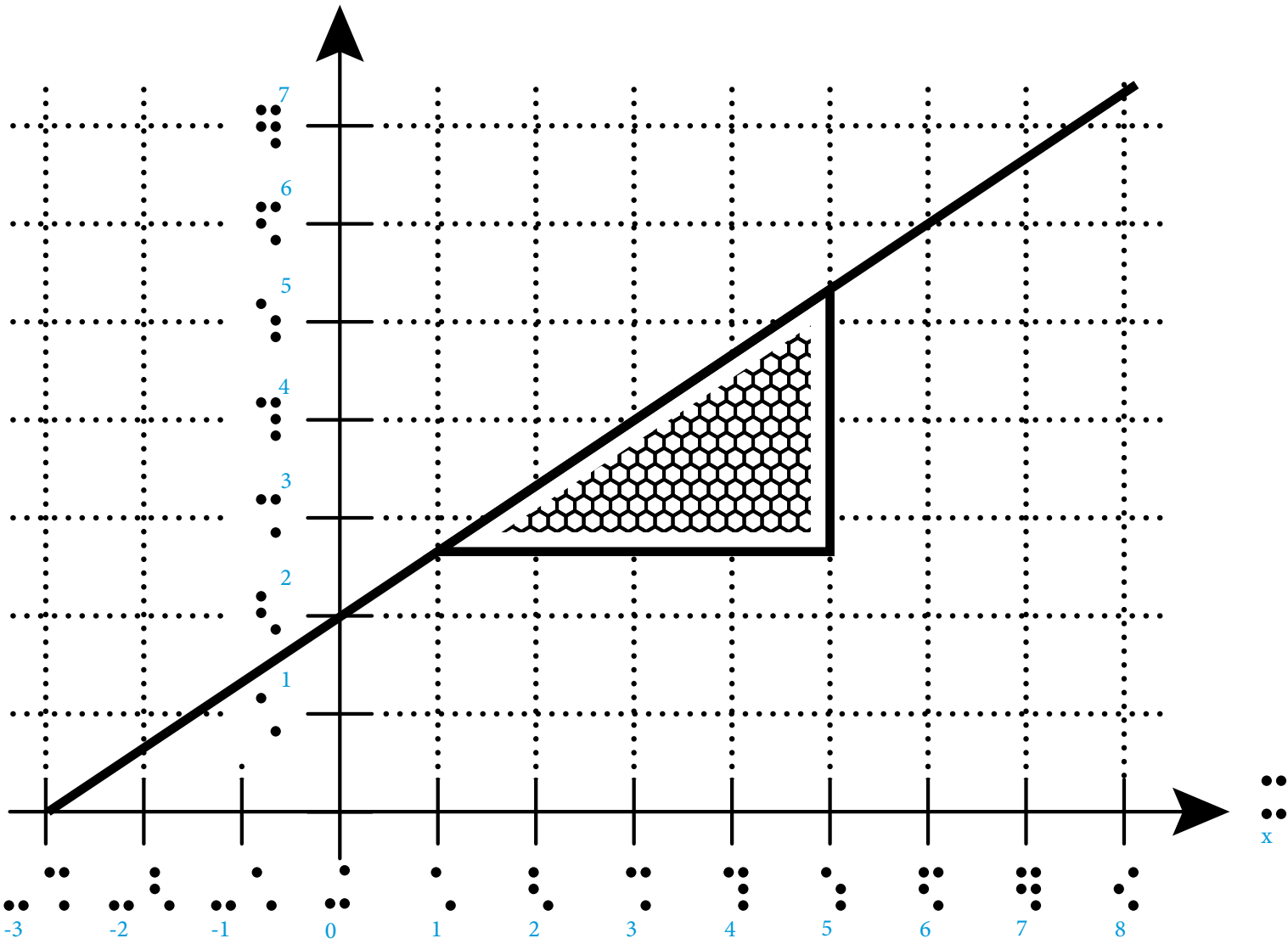
f(x)

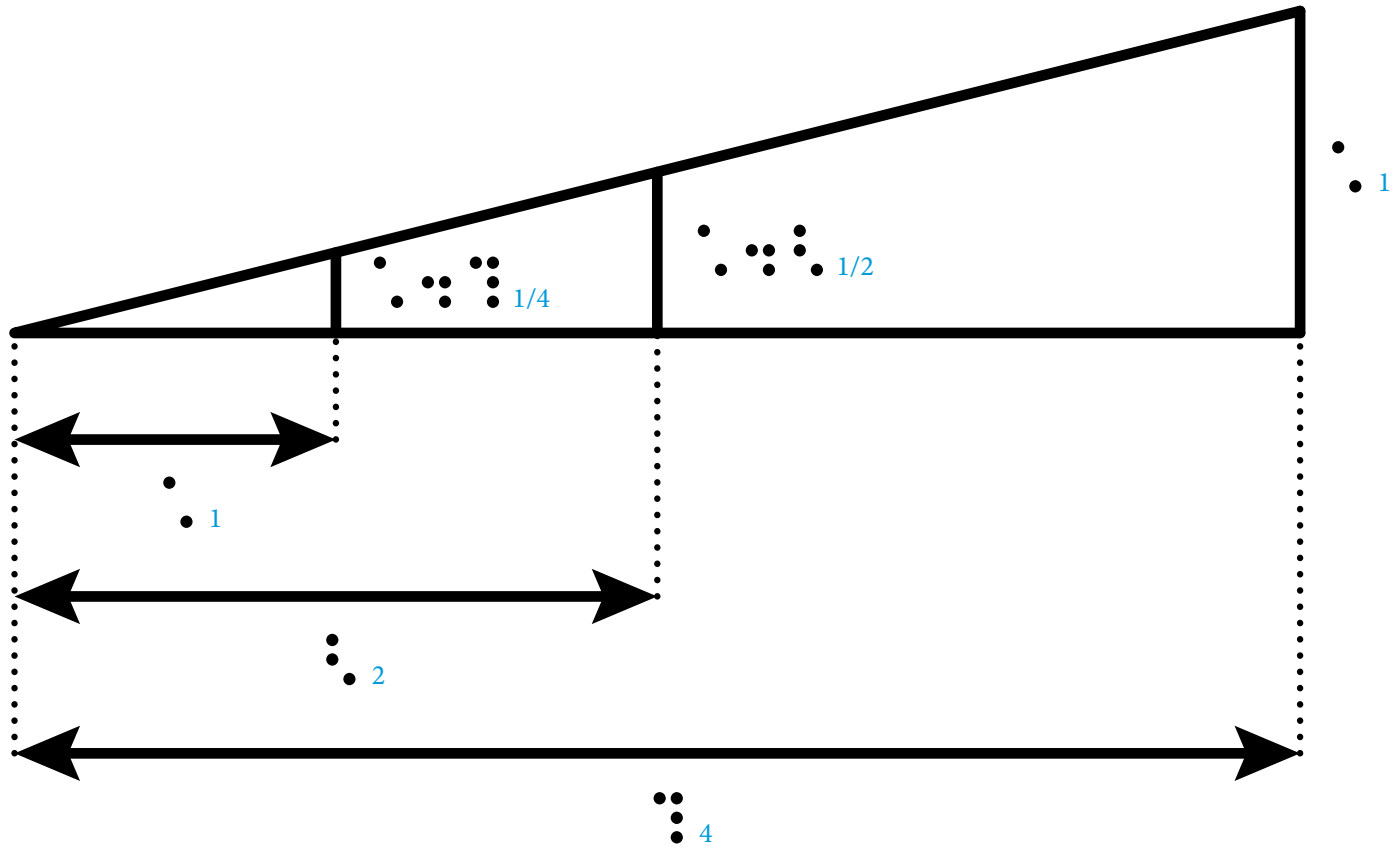
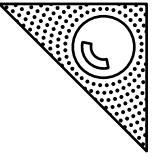
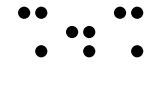
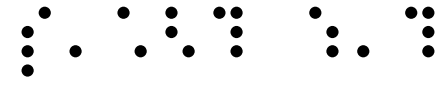
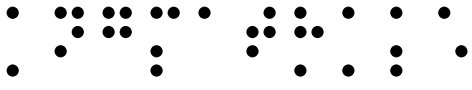


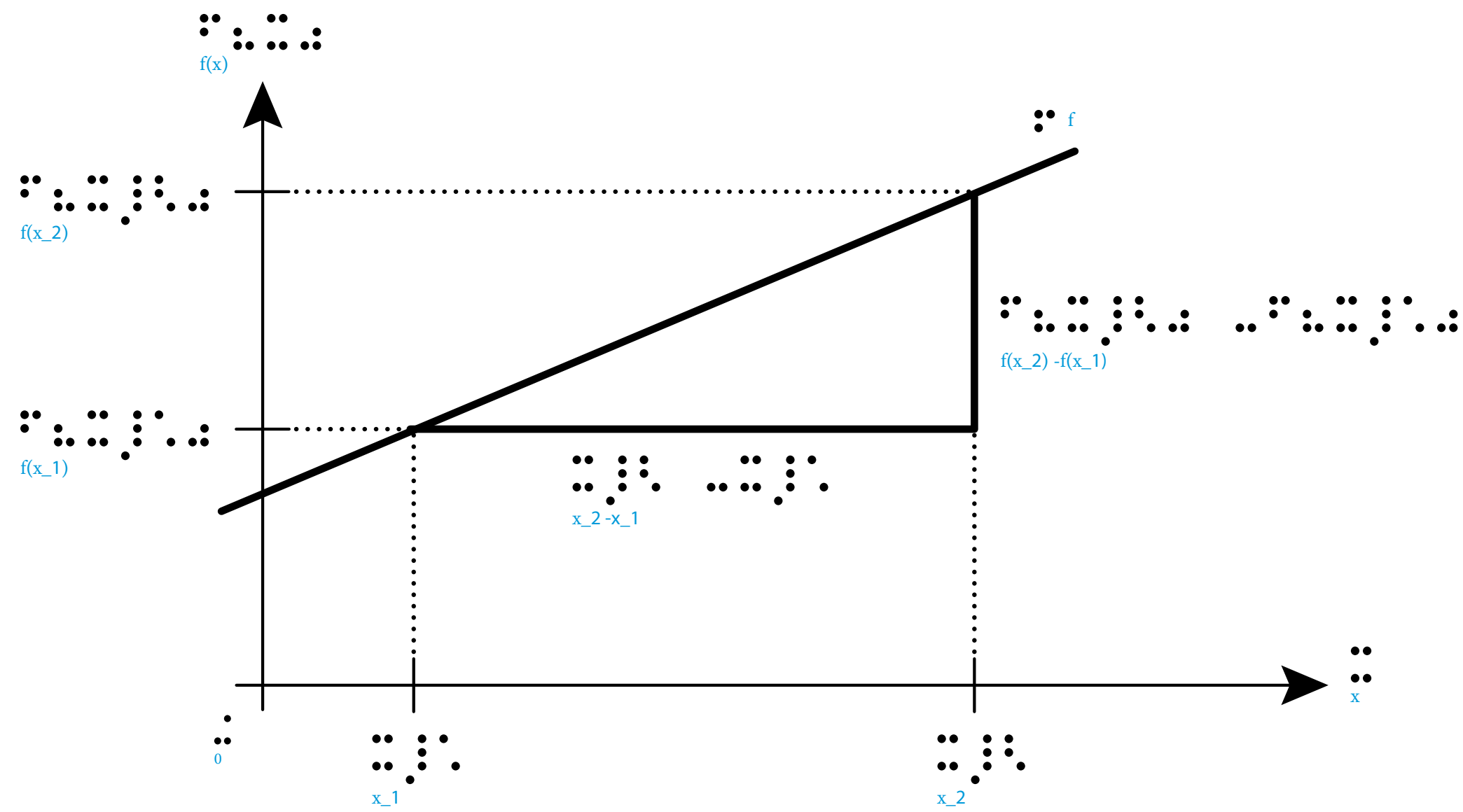
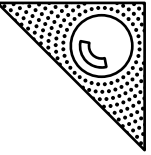


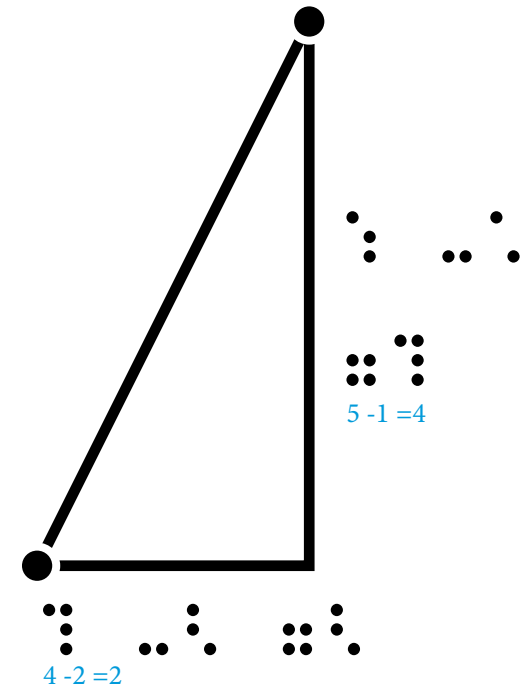
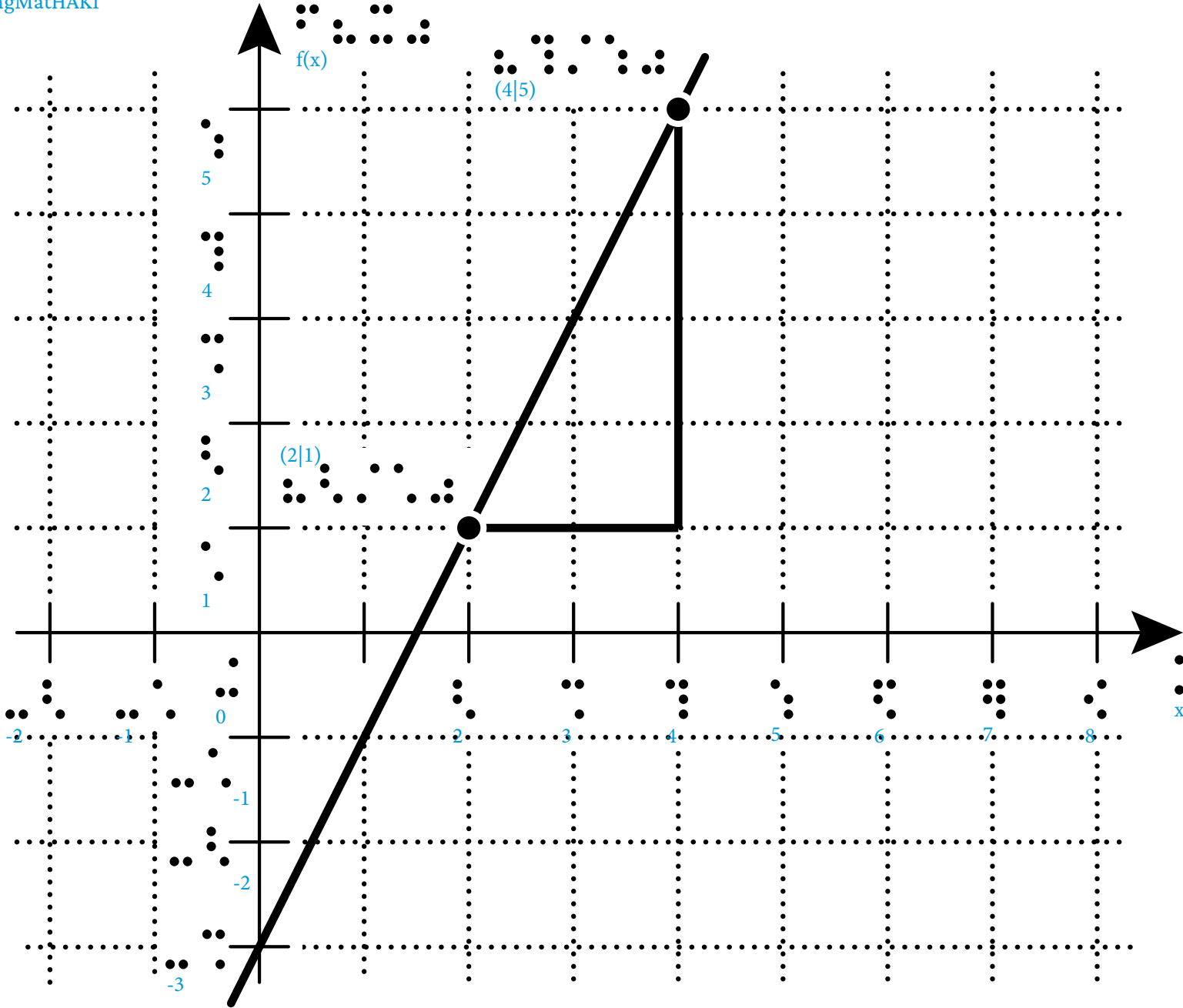
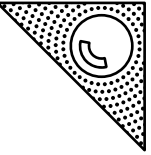


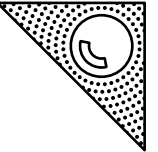
f(x)







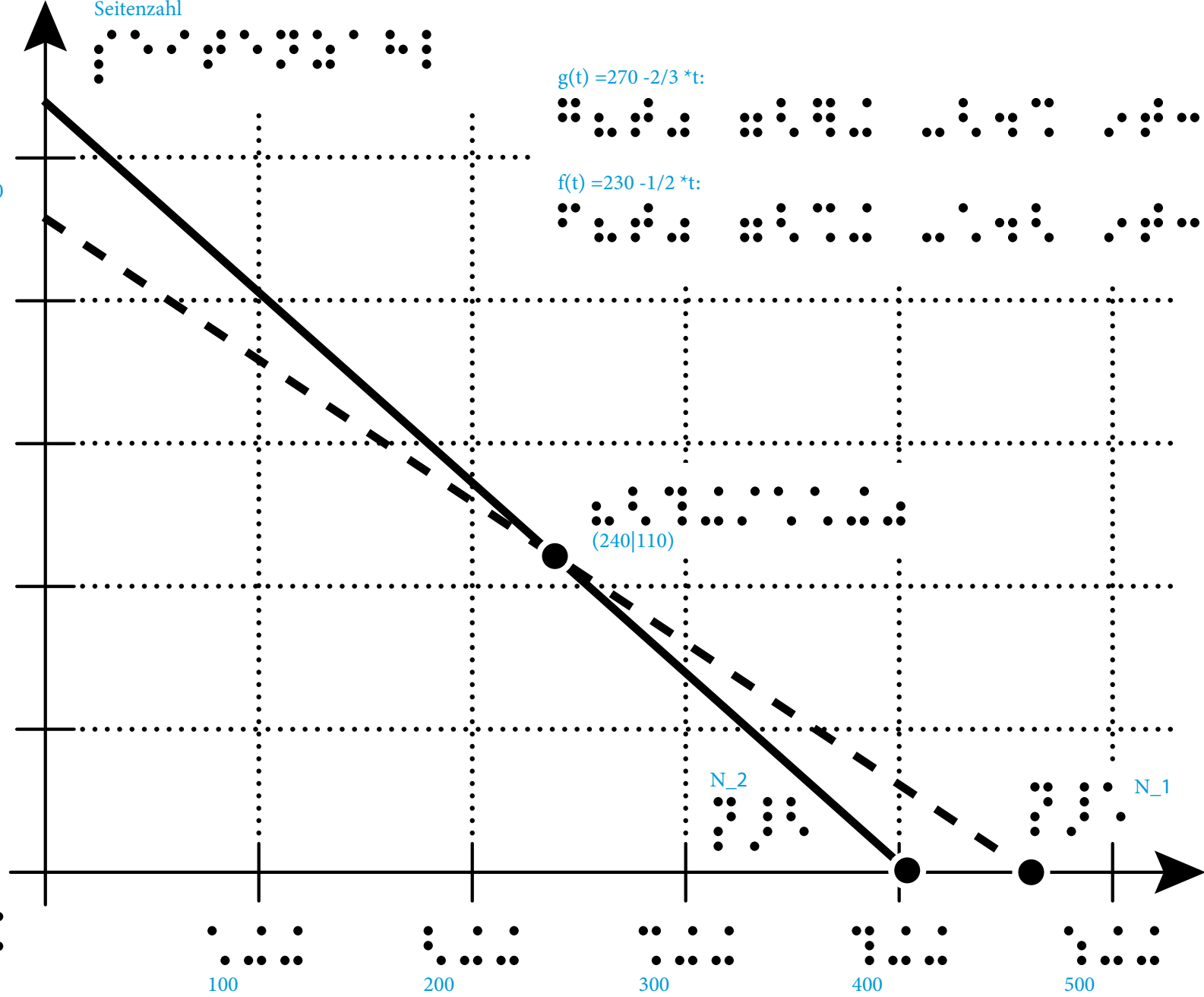




Seitenzahl

$g(t) = 270 - \frac{2}{3} * t:$

$f(t) = 230 - \frac{1}{2} * t:$

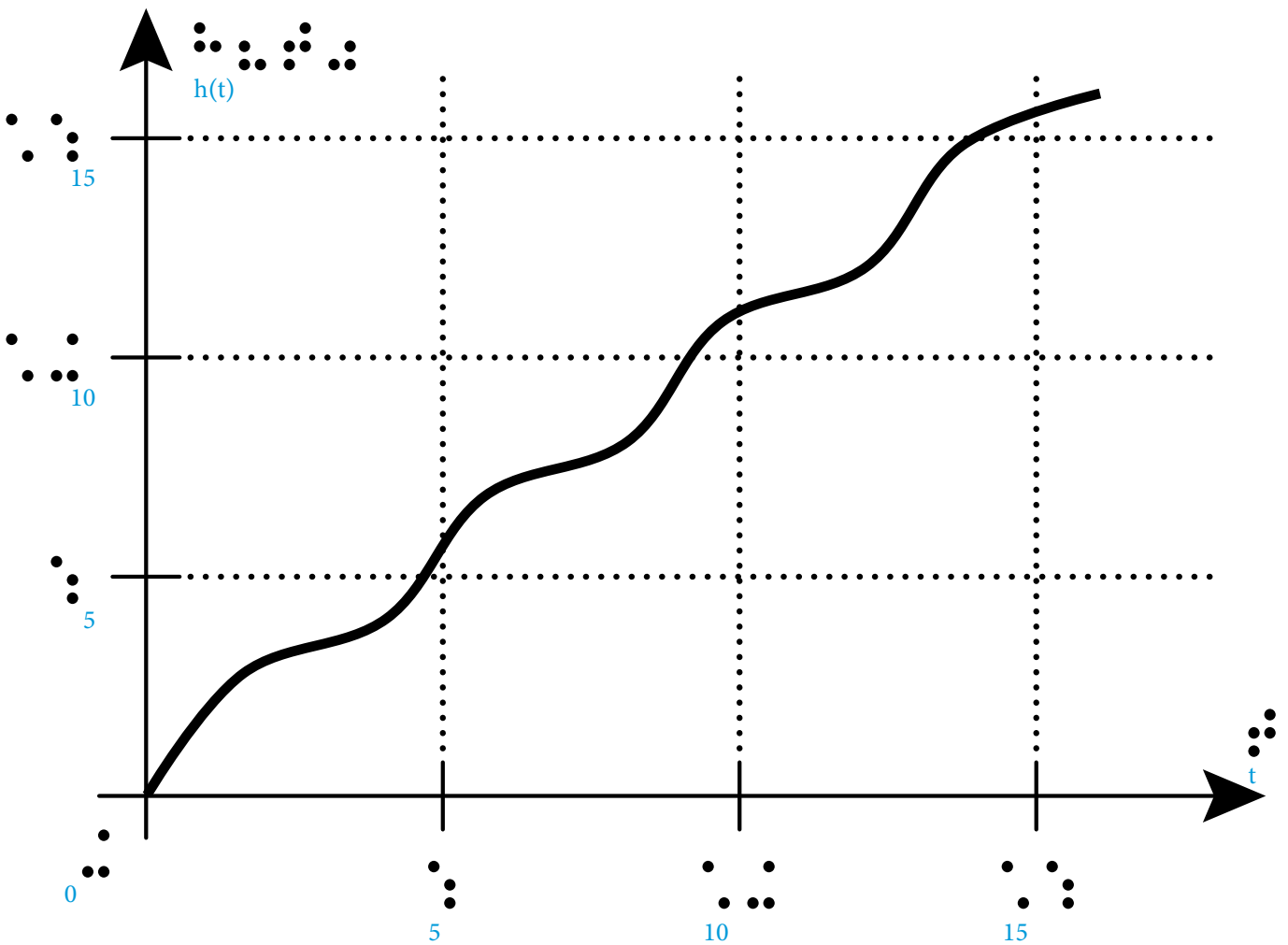
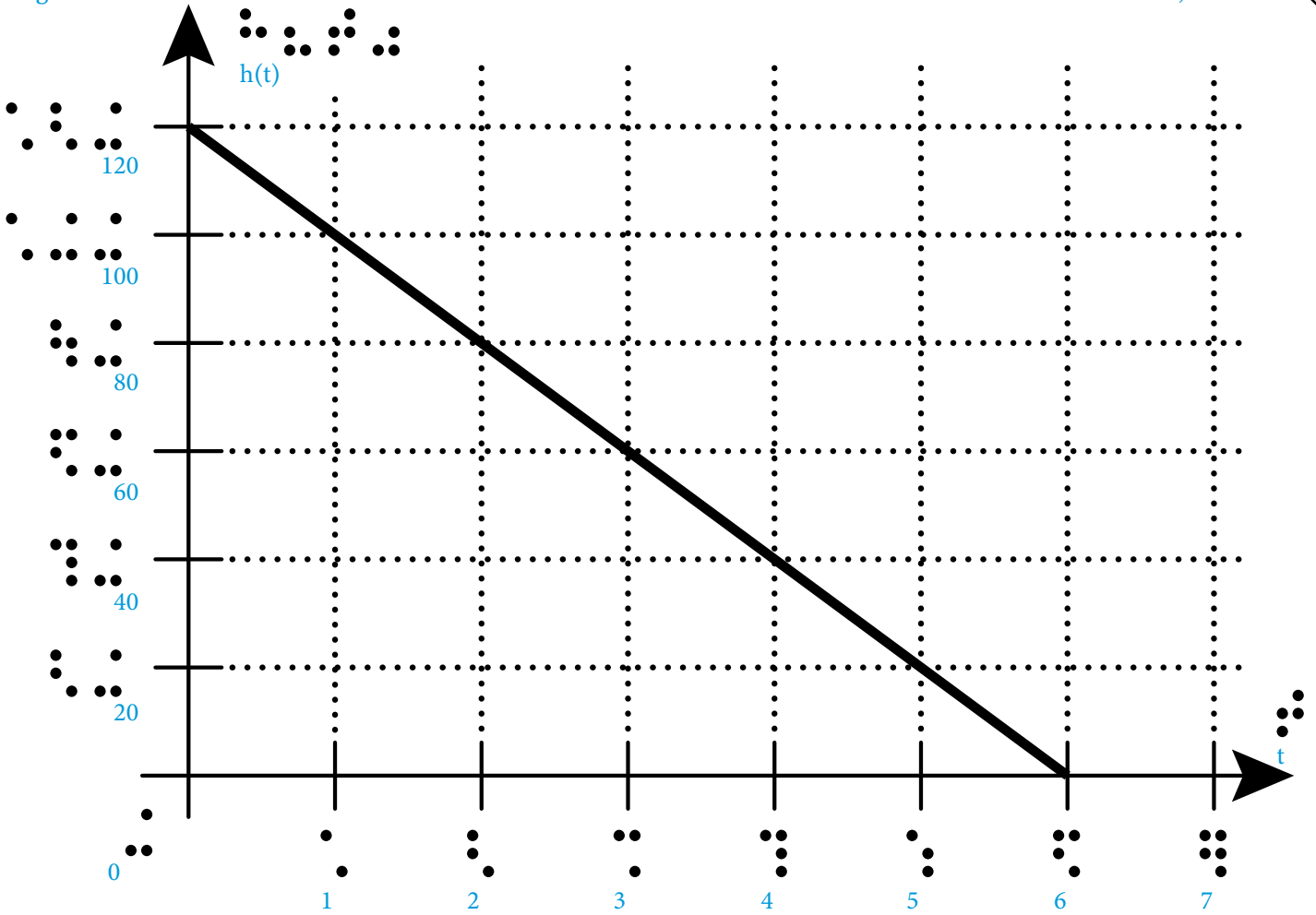
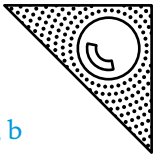


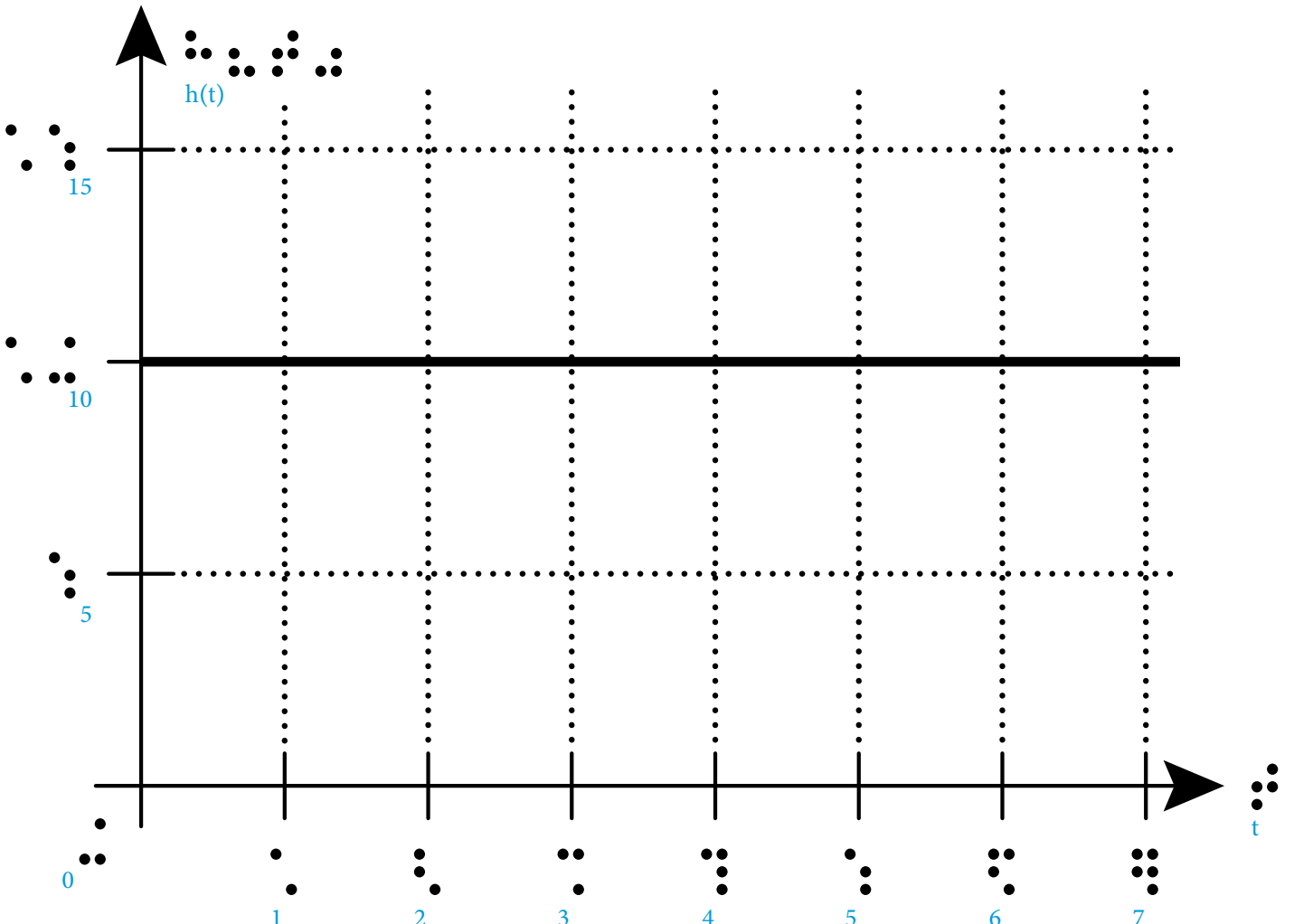
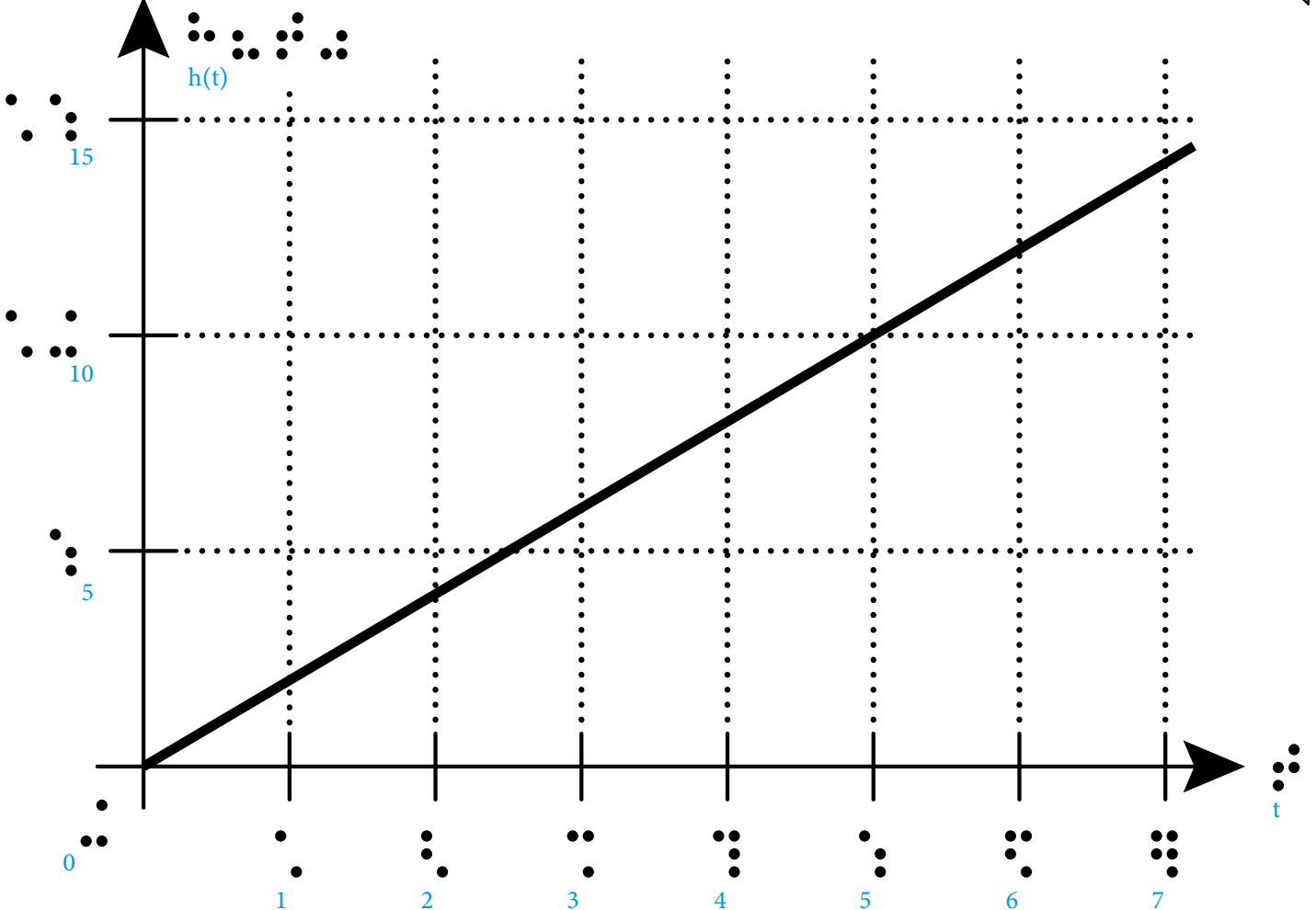
(240 | 110)

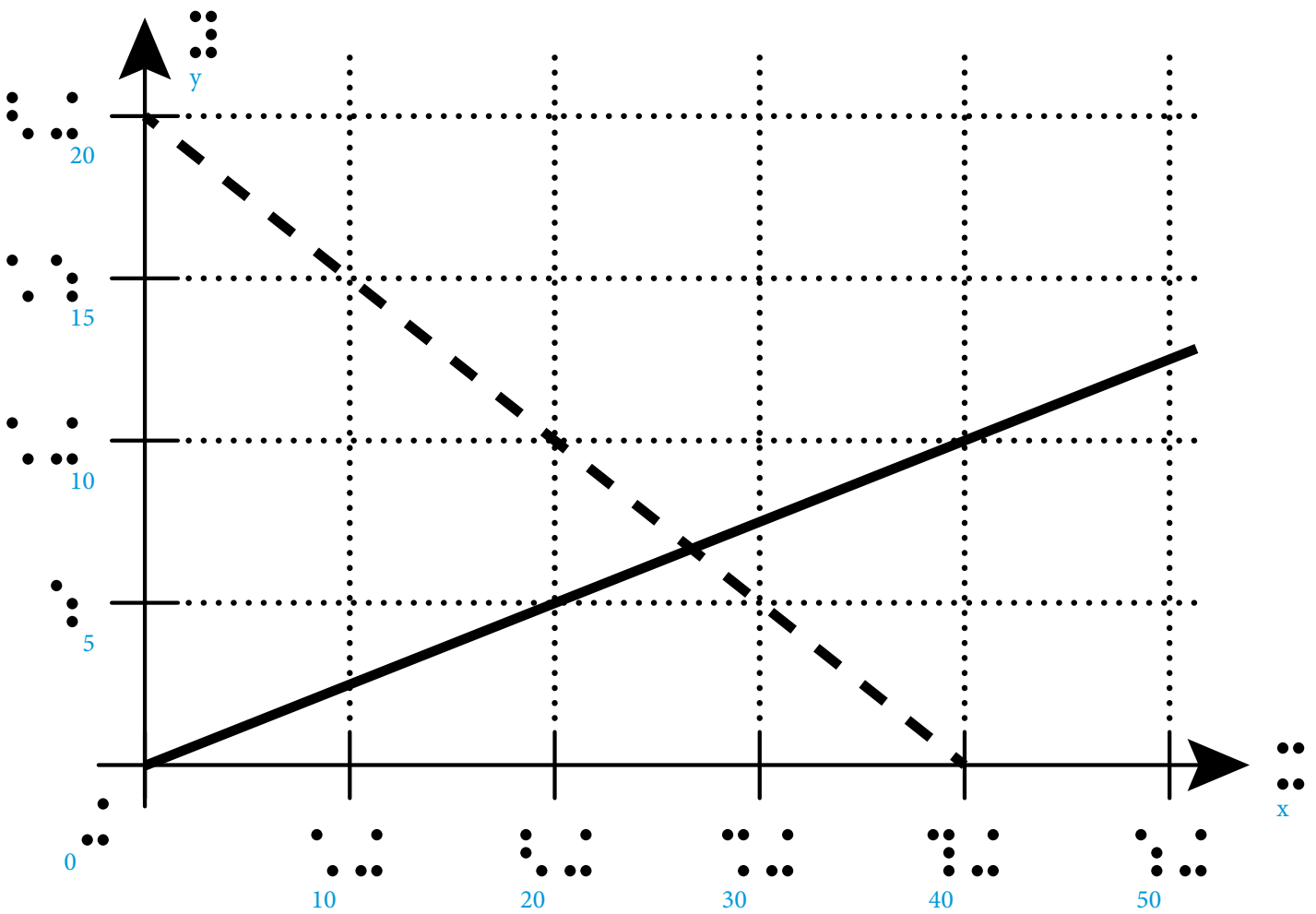
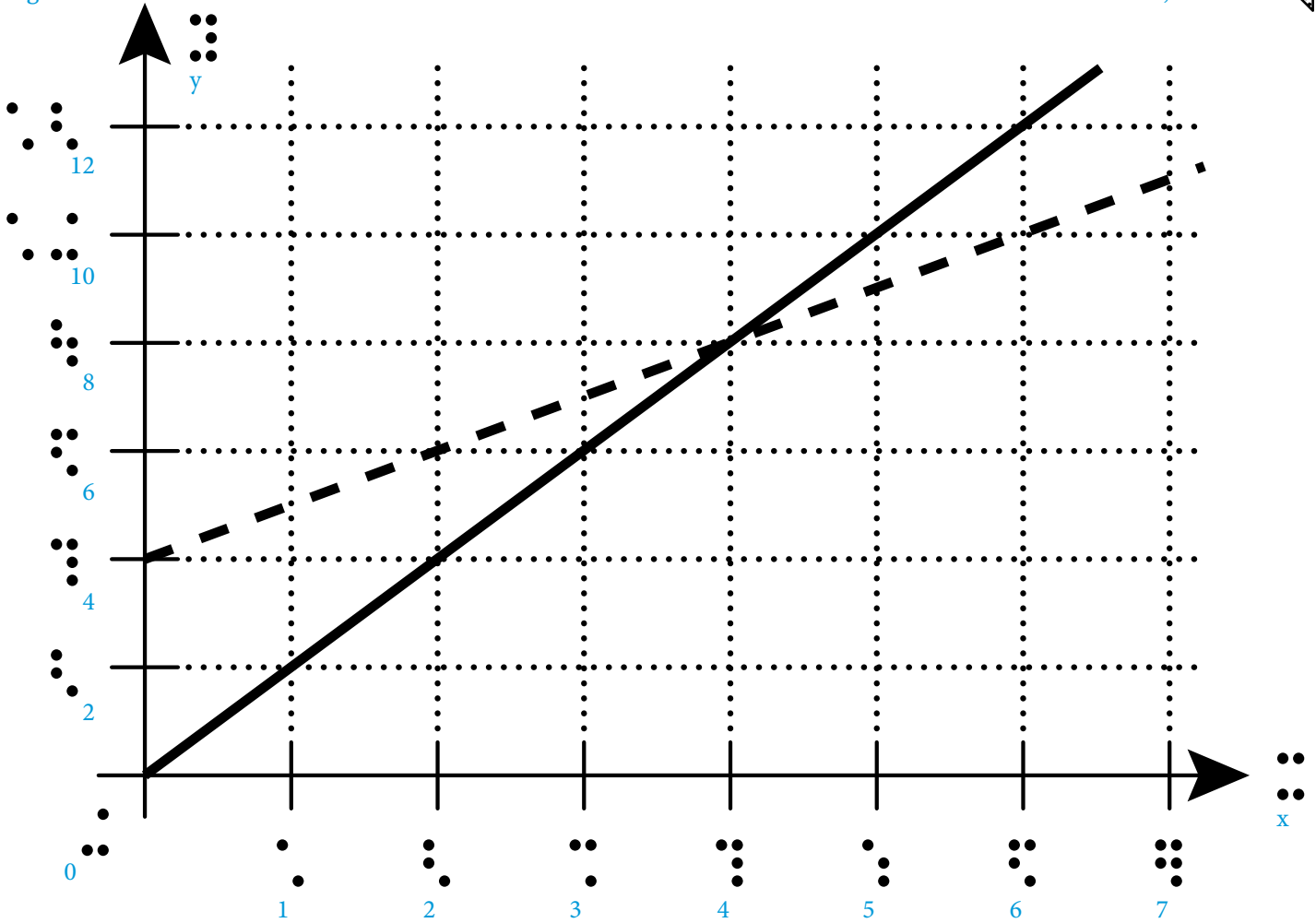
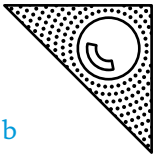
N_2

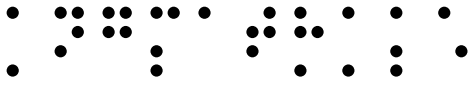
N_1

Zeit in min

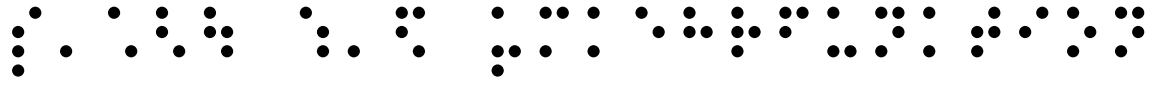




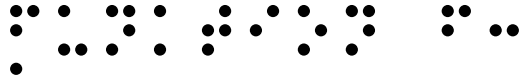
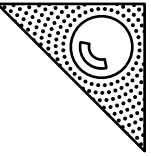




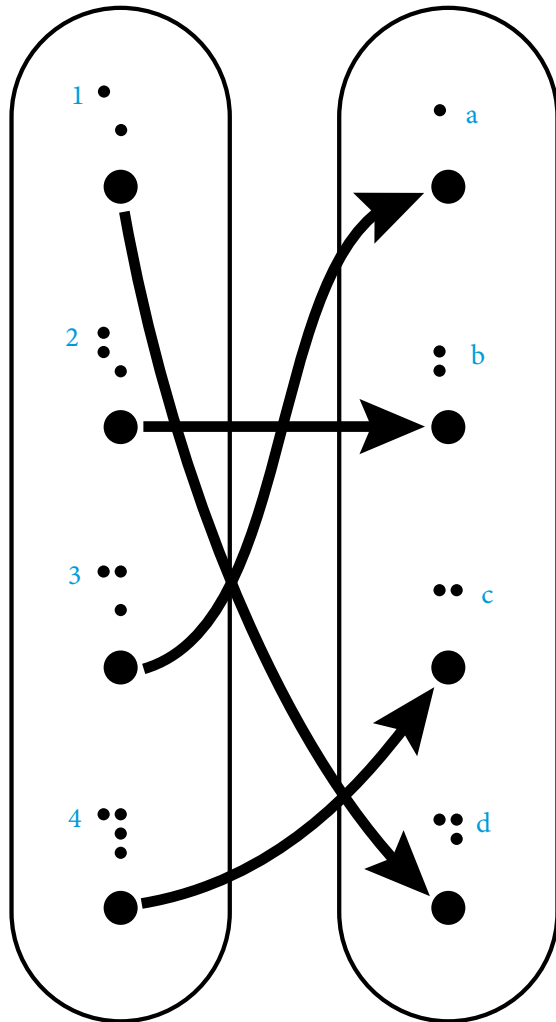
AngMathHAK1



S.128 5.6 Umkehrfunktion



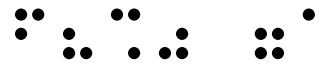
Funktion f:



$f(1) = d$



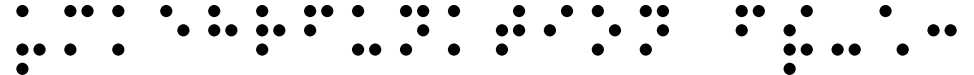
$f(2) = b$



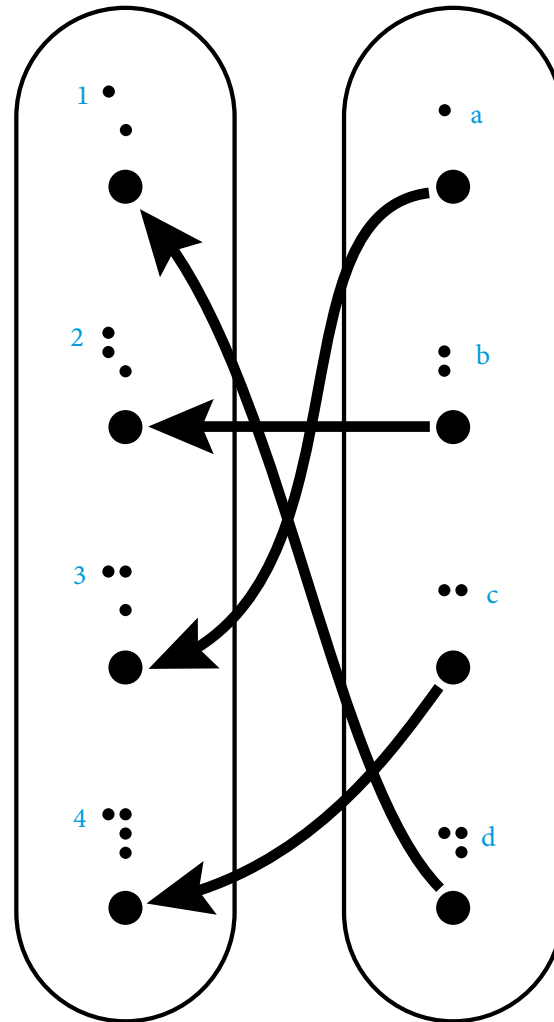
$f(3) = a$



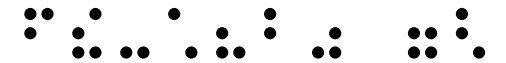
$f(4) = c$



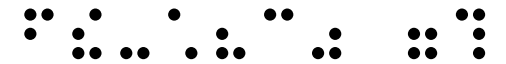
Umkehrfunktion f^{-1} :



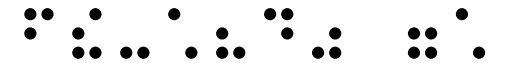
$f^{-1}(a) = 3$



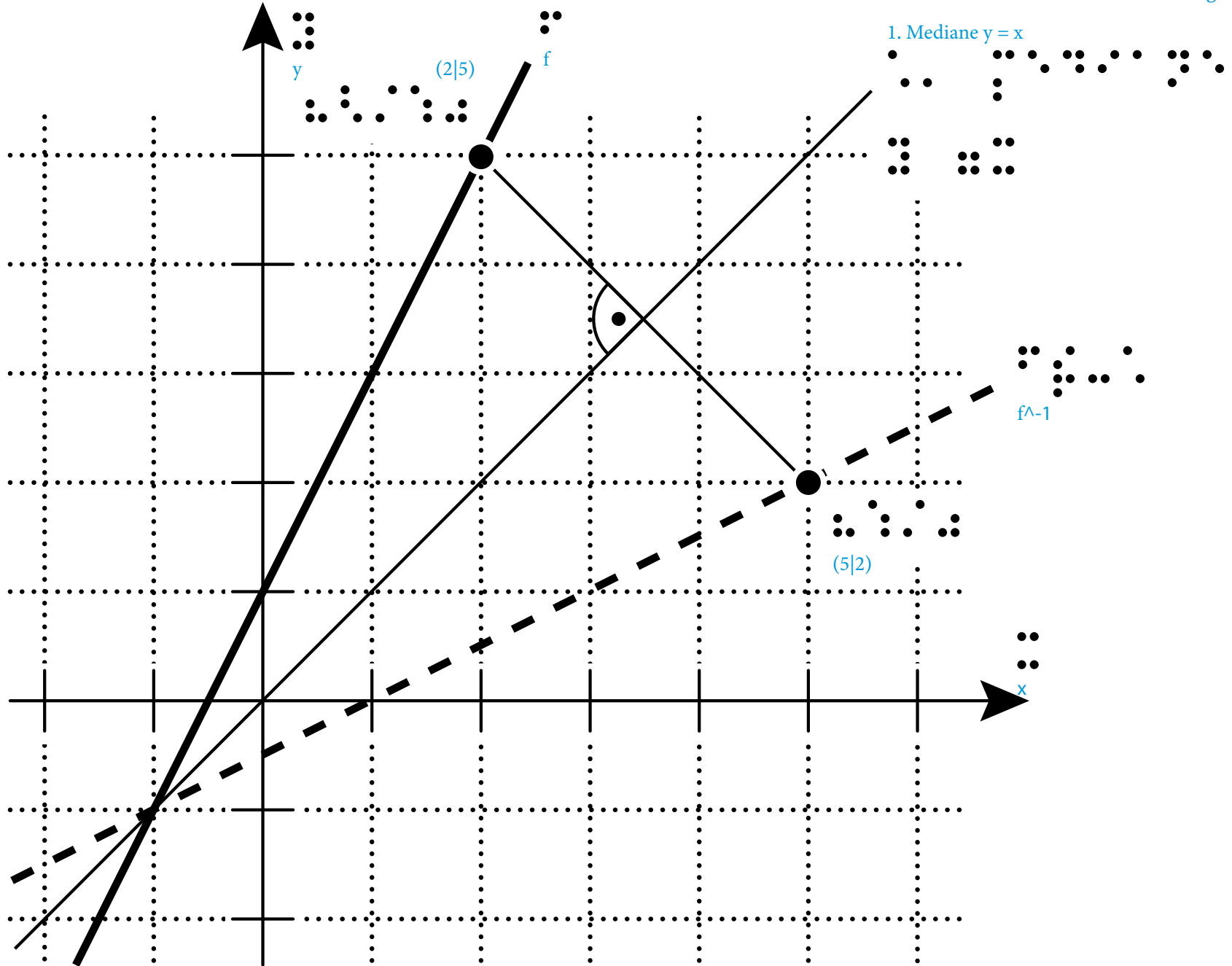
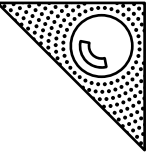
$f^{-1}(b) = 2$

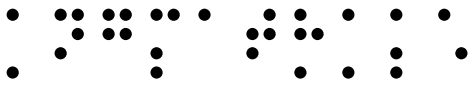


$f^{-1}(c) = 4$

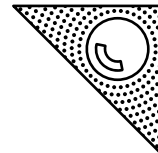
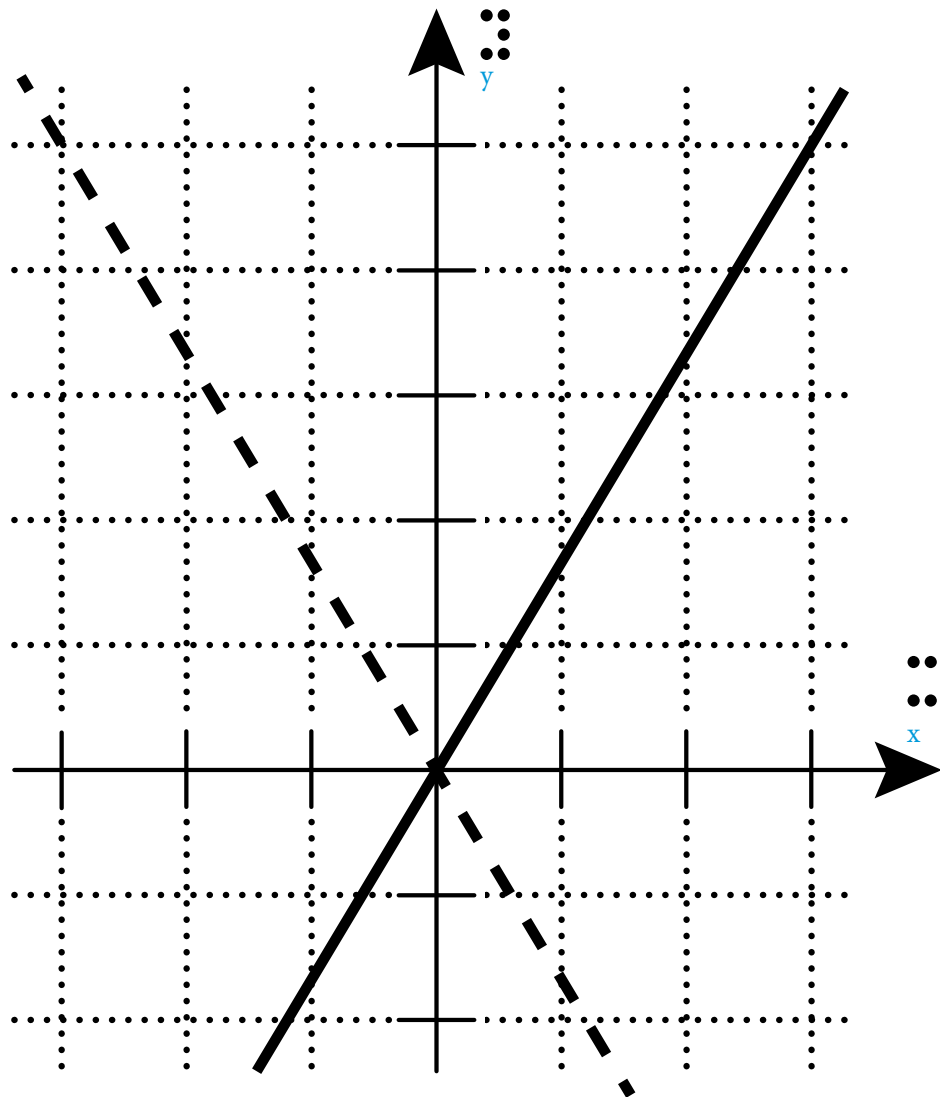


$f^{-1}(d) = 1$

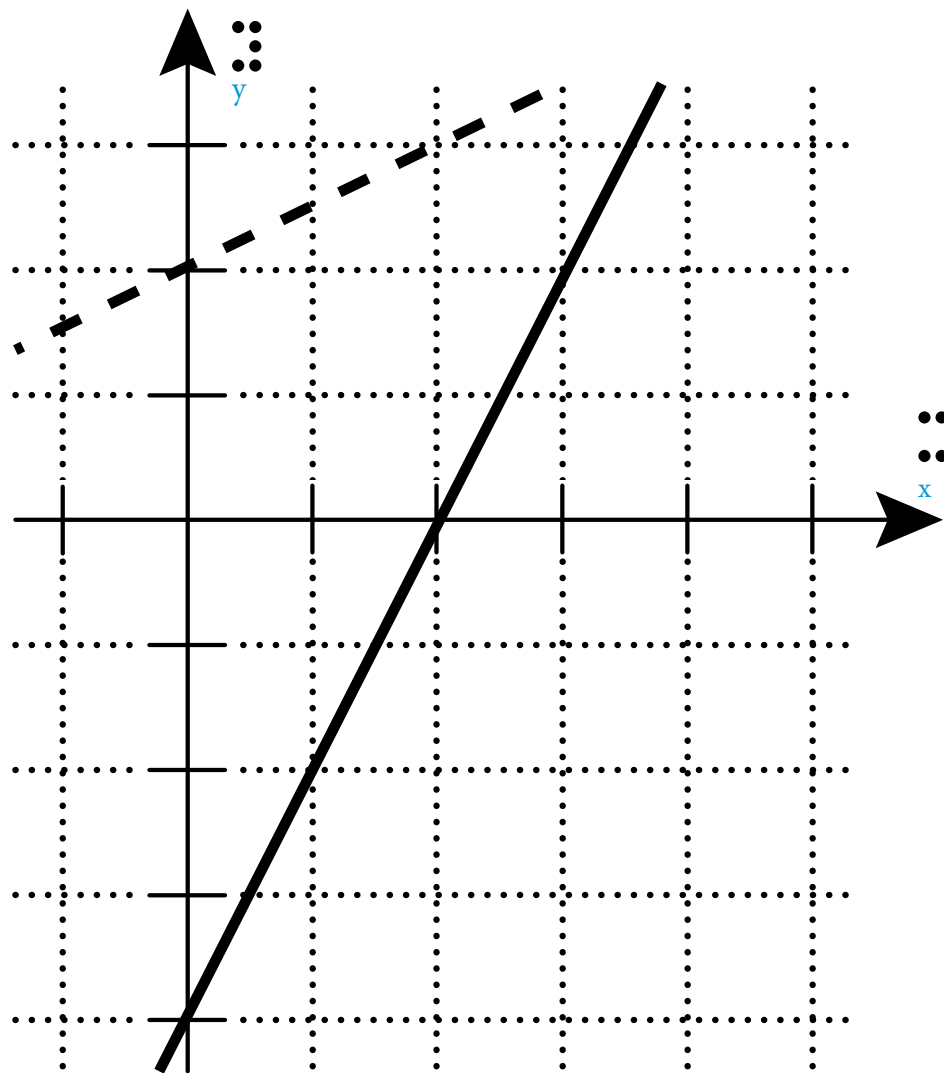


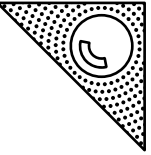


a)



b)

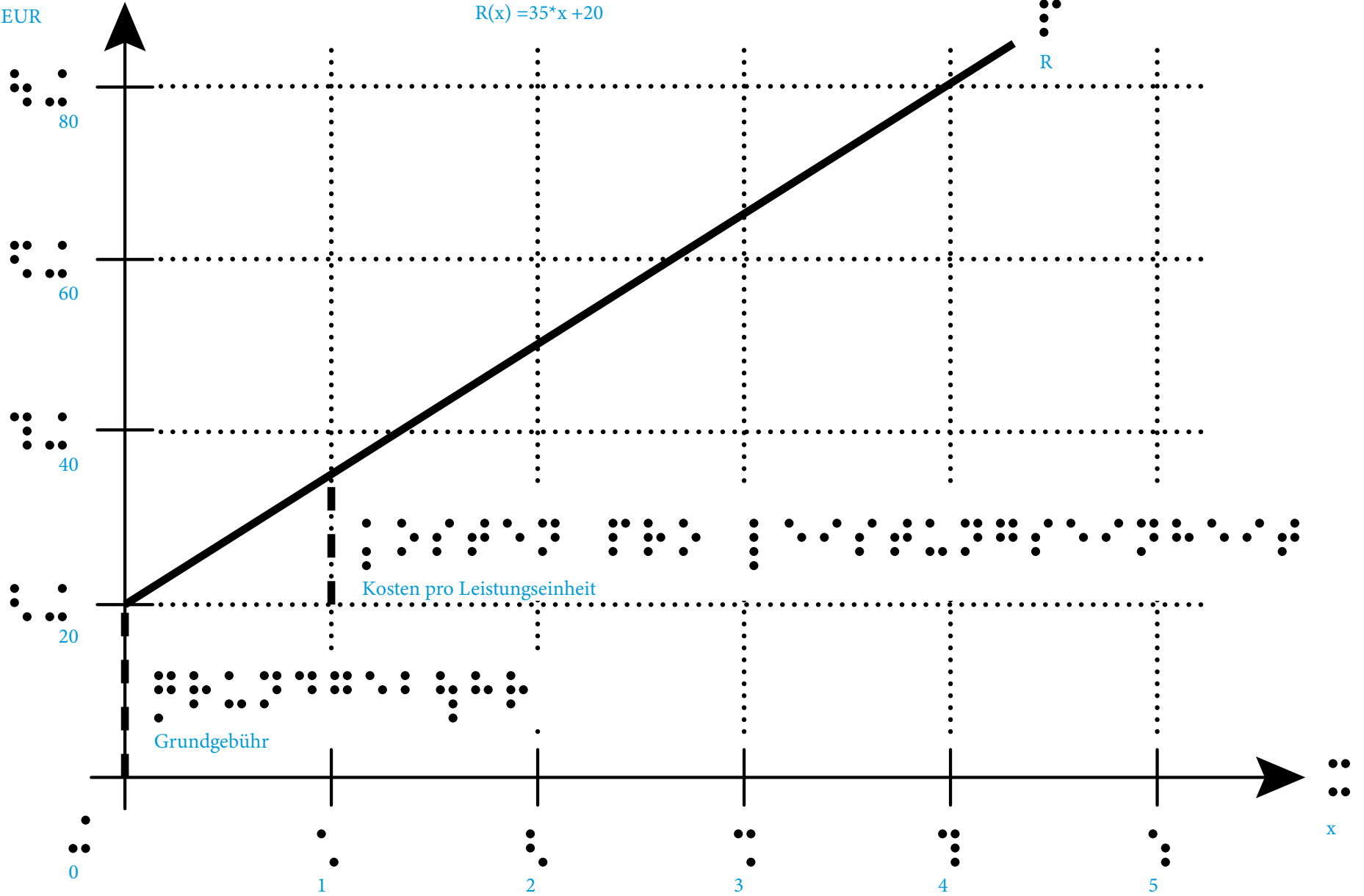


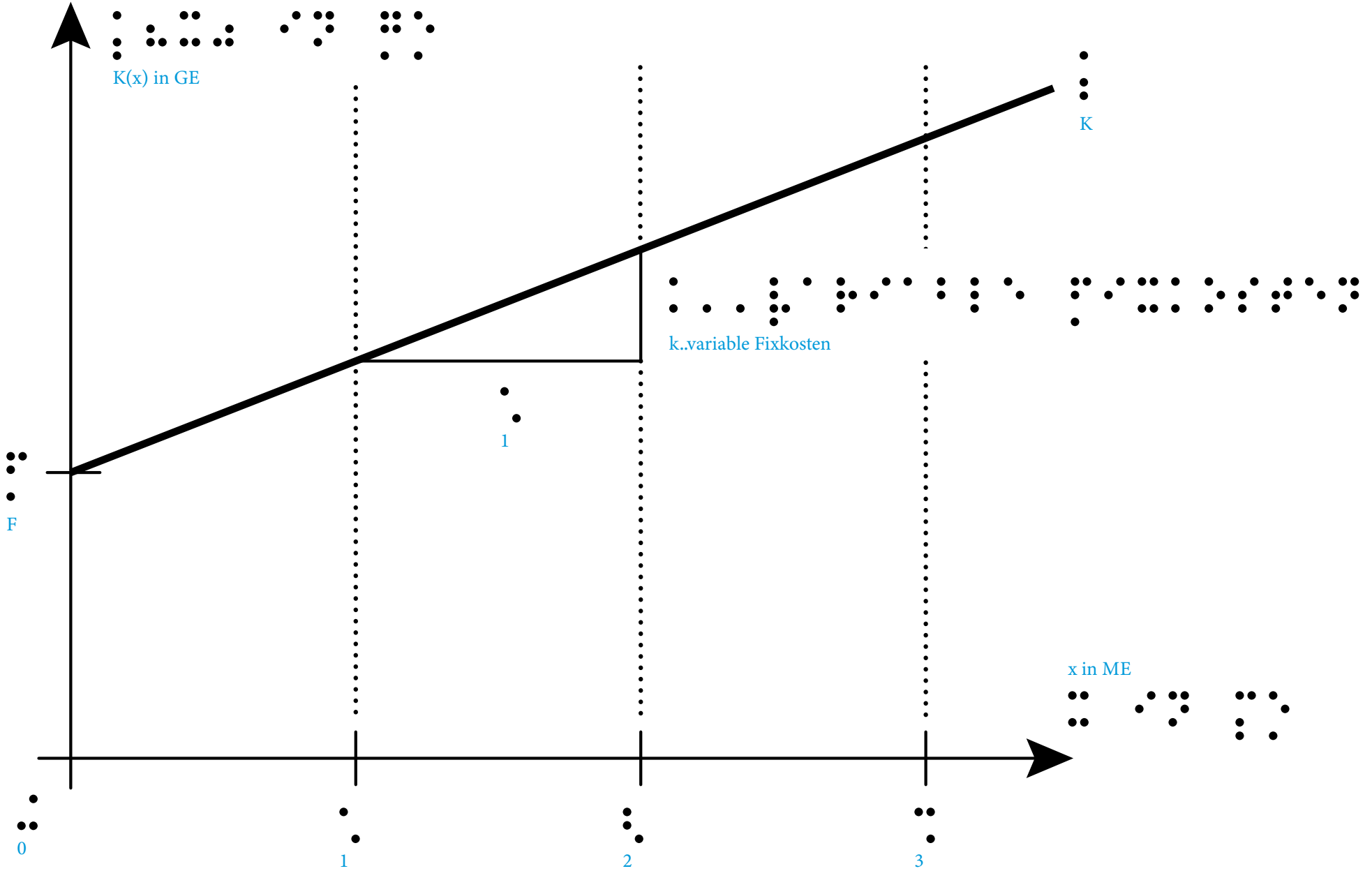
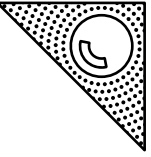


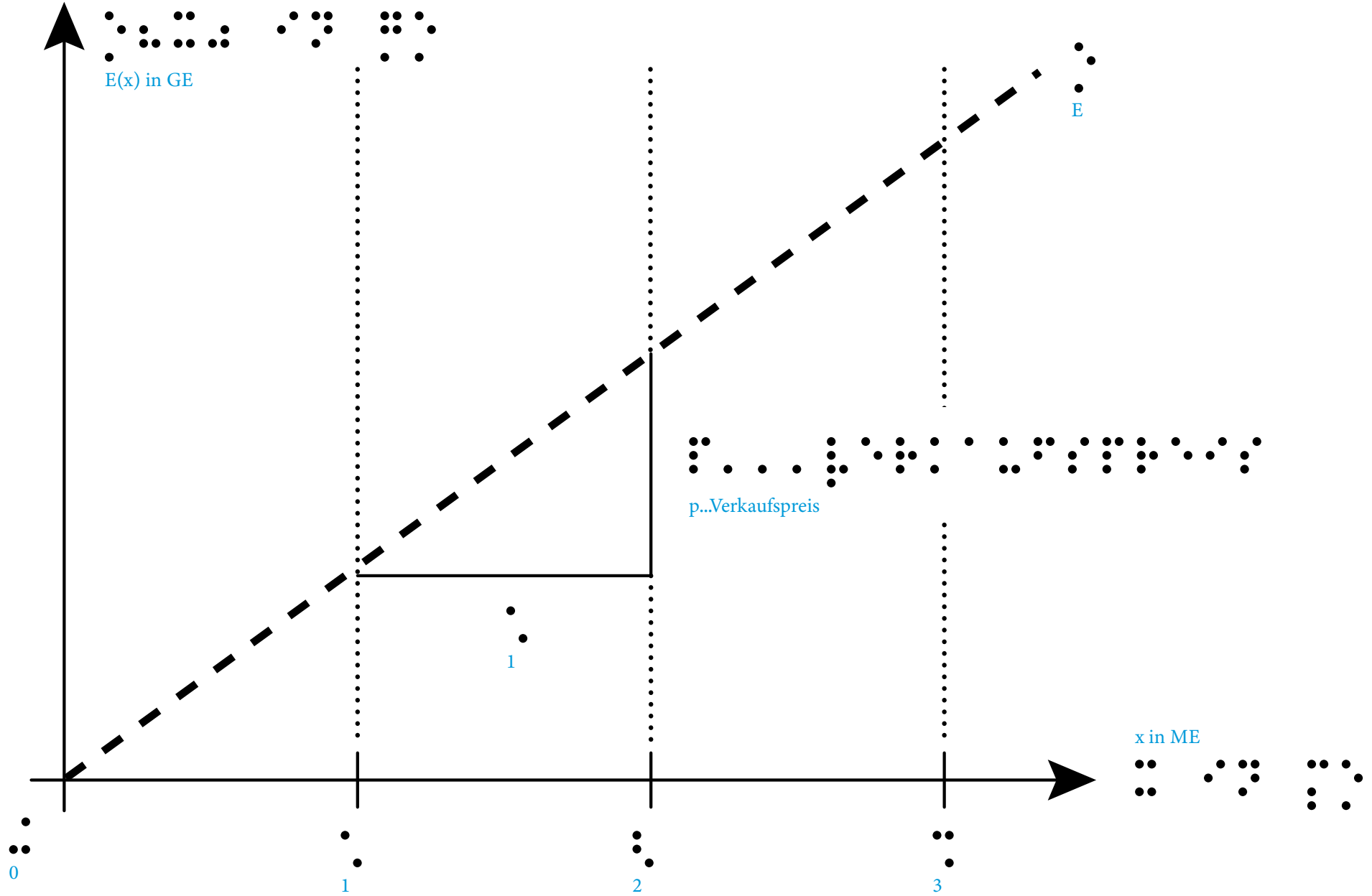
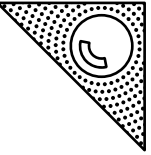
R(x) in EUR

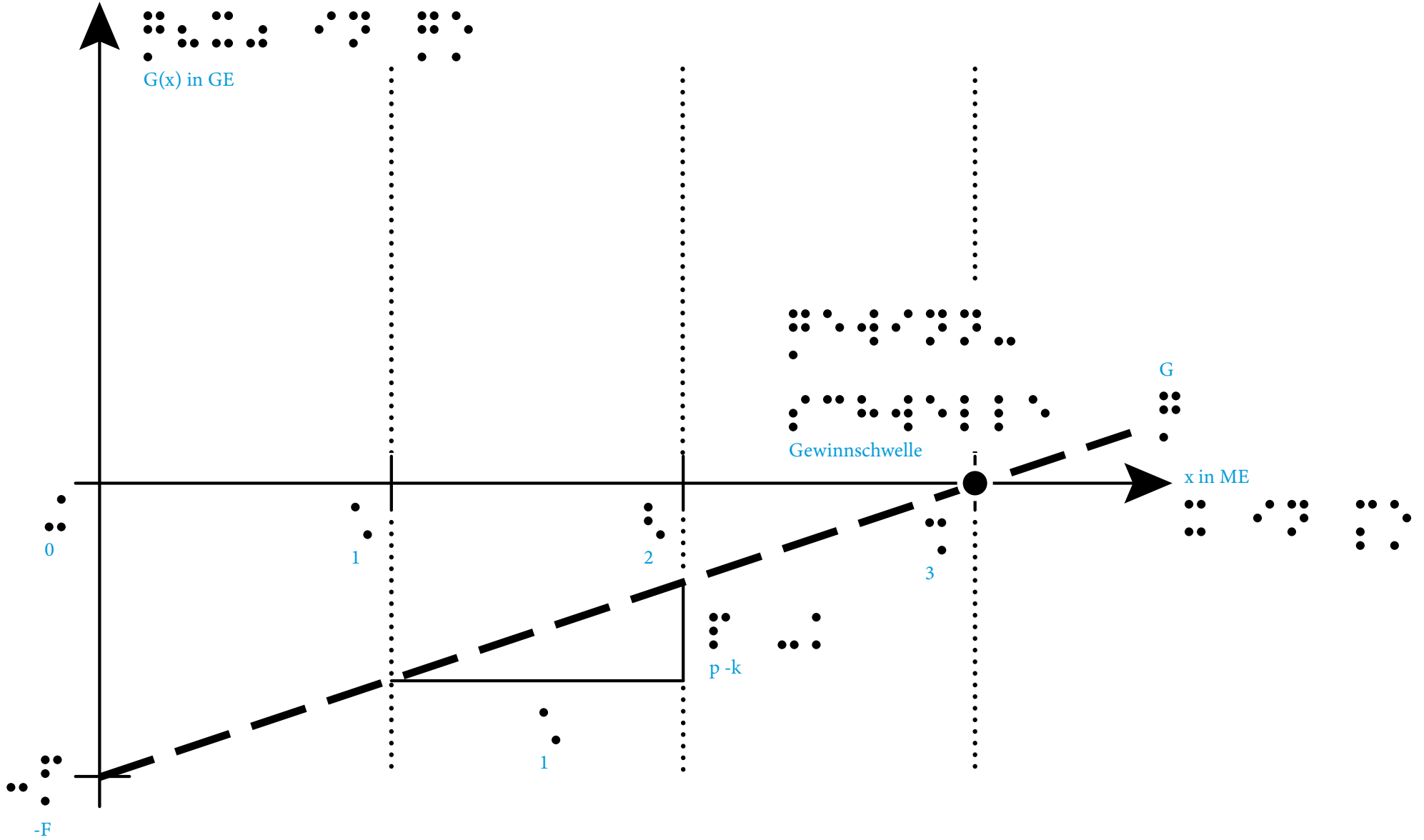
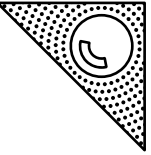
$$R(x) = 35 \cdot x + 20$$

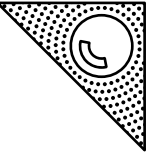
R











K(x), E(x), G(x) in EUR

40000

30000

20000

10000

0

-10000

-20000

-30000

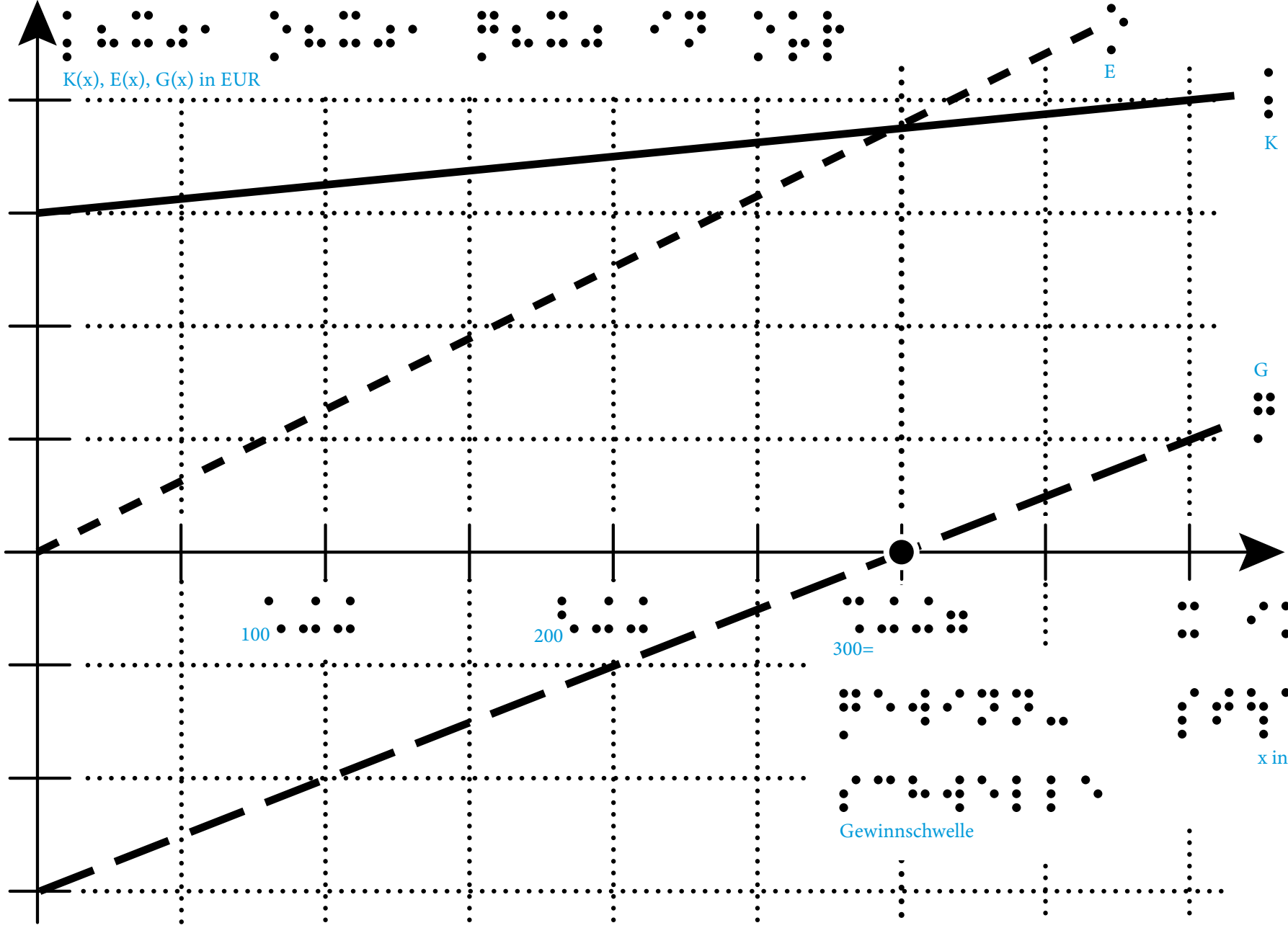
100

200

300=

x in Stück

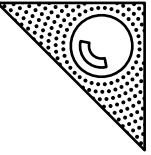
Gewinnschwelle



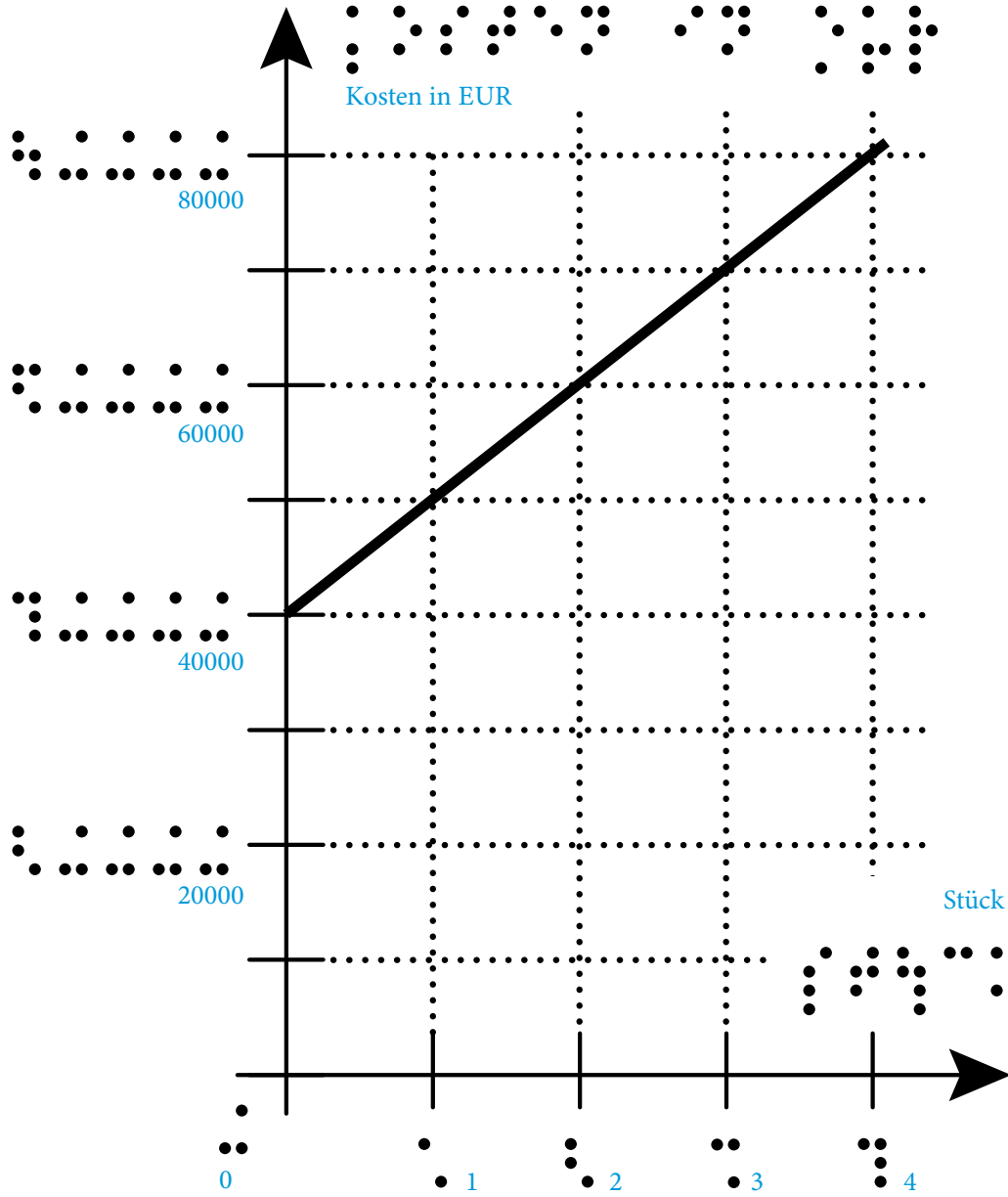
K

E

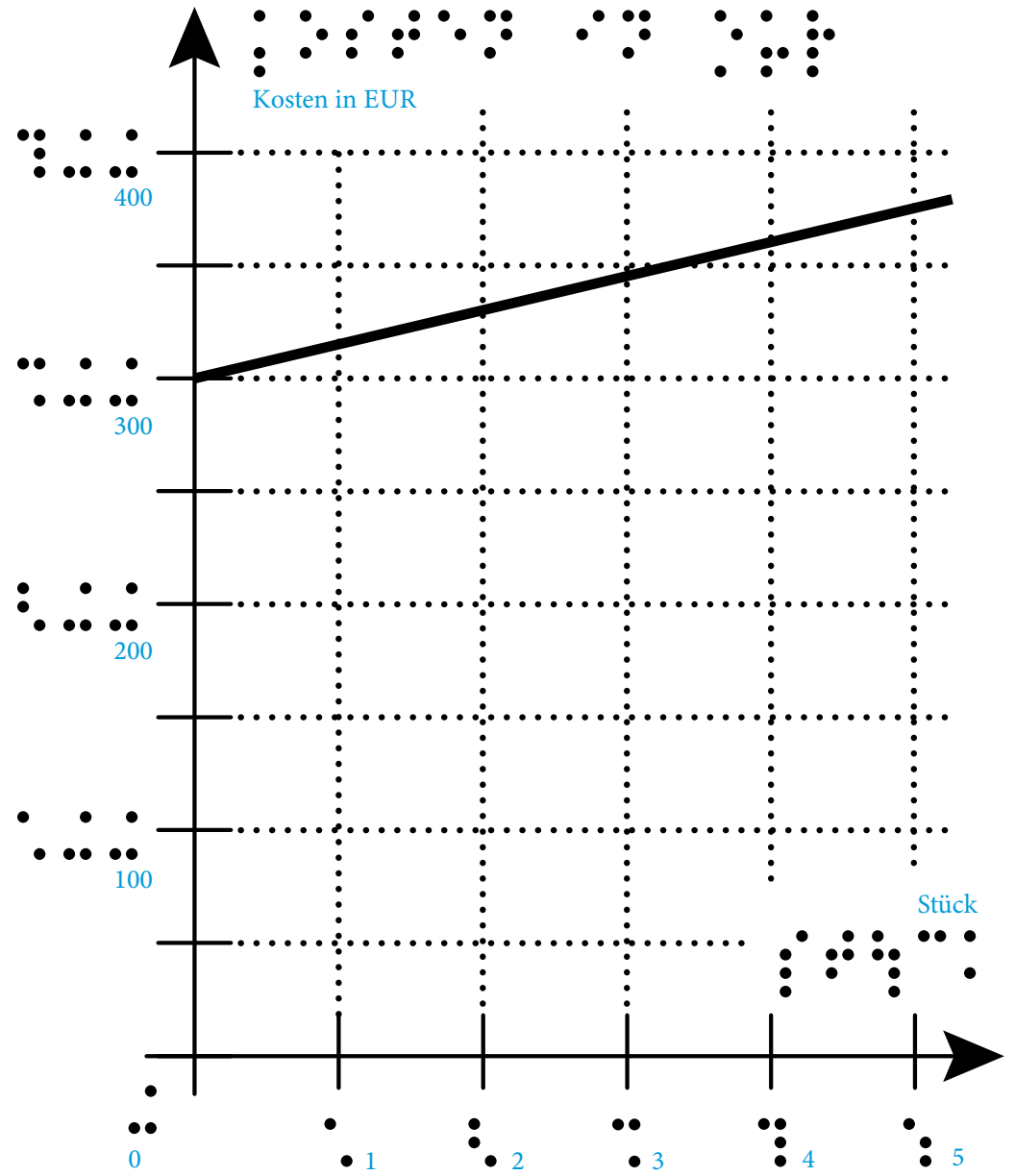
G

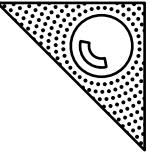


a)



b)





$E(x), K(x)$ in EUR

S.133 5.78

K

E

200000

160000

120000

80000

40000

0

5000

10000

15000

20000

25000

x in Stück

