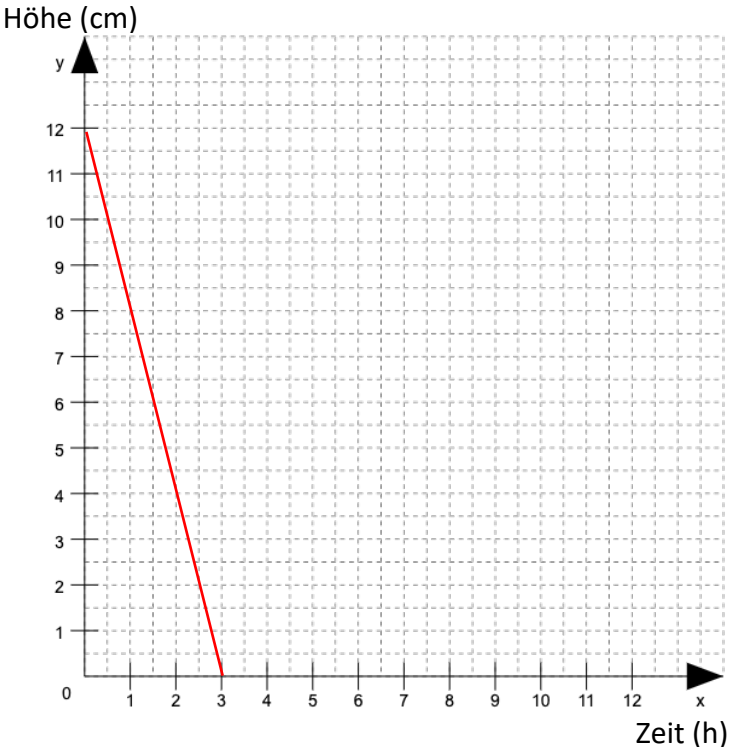
Lösungen Lineare Funktionen II

1)



Zeit (h)	0	1	2	3
Höhe (cm)	12	8	4	0

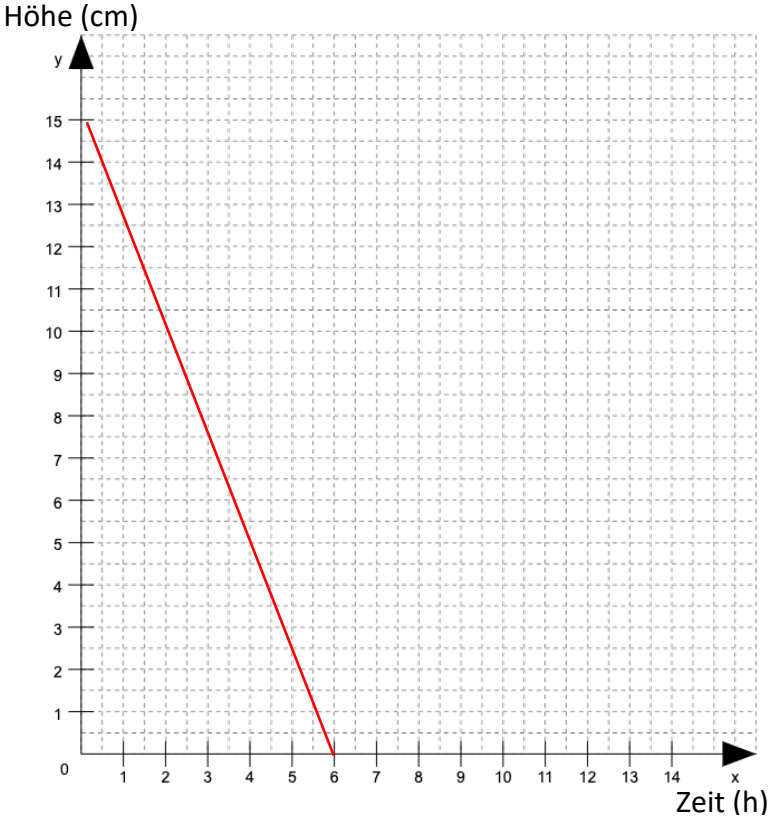
z.B. P1 (0 / 12) P2 (1 / 8)
x1 y1 x2 y2

$Steigung\ a = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8-12}{1-0} = \frac{-4}{1}$ = -4

b = 12

➔ f(x) = - 4x + 12

2)



z.B. P1 (0 / 15) P2 (6 / 0)
x1 y1 x2 y2

$Steigung\ a = \frac{y_2 - y_1}{x_2 - x_1} = \frac{0-15}{6-0} = \frac{-15}{6}$ = -2,5

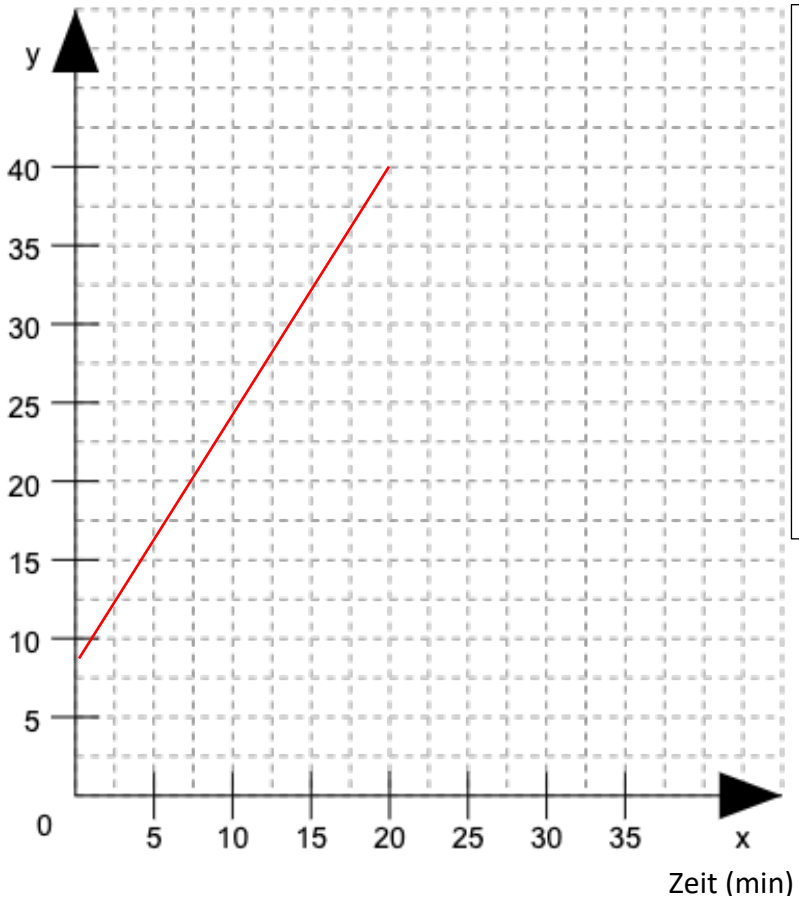
b = 15

➔ f(x) = - 2,5x + 15

3)

Zeit (min)	0	5	10	15	20
Füllmenge (l)	8	16	24	32	40

Füllmenge (Liter)



Zeit (min)

z.B. P1 (0 / 8) P2 (20 / 40)
x1 y1 x2 y2

$Steigung\ a = \frac{y_2 - y_1}{x_2 - x_1} = \frac{40-8}{20-0} = \frac{32}{20}$ = 1,6

pro Minute fließen 1,6l in das Aquarium.

b = 8

➔ f(x) = 1,6x + 8