

Aufgabe 3

a)

$$P_1(-2 \mid -1,5) \quad P_2(0 \mid 0,5)$$

$$f(x) = mx + b$$

$$m = \frac{0,5 - (-1,5)}{0 - (-2)} = \frac{2}{2} = 1$$

$$f(x) = x + b$$

$$0,5 = 0 + b$$

$$0,5 = b$$

$$f(x) = x + 0,5$$

$$f(1) = 1 + 0,5 = 1,5$$

$$f(3) = 3 + 0,5 = 3,5$$

$$5,5 = x + 0,5$$

$$5 = x$$

x	-2	0	1	3	5
$f(x)$	-1,5	0,5	1,5	3,5	5,5

b)

$$P_1(-6 \mid -2) \quad P_2(-4 \mid 3)$$

$$f(x) = mx + b$$

$$m = \frac{3 - (-2)}{-4 - (-6)} = \frac{5}{2} = 2,5$$

$$f(x) = 2,5x + b$$

$$3 = 2,5 \cdot (-4) + b$$

$$3 = -10 + b$$

$$13 = b$$

$$f(x) = 2,5x + 13$$

$$f(0) = 2,5 \cdot 0 + 13 = 13$$

$$f(2) = 2,5 \cdot 2 + 13 = 18$$

$$38 = 2,5x + 13$$

$$25 = 2,5x$$

$$10 = x$$

x	-6	-4	0	2	10
$f(x)$	-2	3	13	18	38