Selbsttest Lineare Funktionen

Aufgaben: **Bestimmen Sie die Schnittstellen mit x- und y-Achse**

a) $y = f(x) = -x + 4$
b) $y = f(x) = -5x - 35$
c) $y = f(x) = -8x - 24$
d) $y = f(x) = 6x + 60$
e) $y = f(x) = -x + 2$
f) $y = f(x) = -3x - 6$
g) $y = f(x) = x$
h) $y = f(x) = -3x - 27$
i) $y = f(x) = -4x - 24$
j) $y = f(x) = 7x - 7$

a) $y = f(x) = -1{,}1x - 5{,}83$
b) $y = f(x) = -8{,}3x + 66{,}4$
c) $y = f(x) = -4{,}6x + 46$
d) $y = f(x) = 6{,}2x - 31$
e) $y = f(x) = -5{,}3x - 29{,}15$
f) $y = f(x) = -8{,}8x + 20{,}24$
g) $y = f(x) = 7{,}9x - 46{,}61$
h) $y = f(x) = 2{,}3x - 9{,}43$
i) $y = f(x) = -2{,}3x - 15{,}87$
j) $y = f(x) = 1{,}6x - 7{,}04$
k) $y = f(x) = -1{,}6x - 2{,}72$

Aufgaben: **Bestimmen Sie aus den zwei gegebenen Punkten die Funktionsgleichung**

a) $P_1 = (3; -15)$; $P_2 = (2; -12)$
b) $P_1 = (9; -11)$; $P_2 = (1; -3)$
c) $P_1 = (-2; -64)$; $P_2 = (-9; -8)$
d) $P_1 = (-4; 24)$; $P_2 = (-2; 16)$
e) $P_1 = (7; 0)$; $P_2 = (9; 18)$
f) $P_1 = (3; 96)$; $P_2 = (-7; 16)$
g) $P_1 = (6; -12)$; $P_2 = (7; -14)$
h) $P_1 = (1; 110)$; $P_2 = (2; 120)$
i) $P_1 = (-9; 28)$; $P_2 = (9; -98)$
j) $P_1 = (-10; -12)$; $P_2 = (-9; -8)$

a) $P_1 = (-0{,}8; -0{,}65)$; $P_2 = (5{,}5; -41{,}6)$
b) $P_1 = (3; 34{,}02)$; $P_2 = (-8{,}2; -13{,}02)$
c) $P_1 = (0{,}4; -39{,}52)$; $P_2 = (-1{,}7; -31{,}54)$
d) $P_1 = (-7{,}5; -43{,}46)$; $P_2 = (-8{,}2; -46{,}33)$
e) $P_1 = (7{,}8; -151{,}8)$; $P_2 = (-5{,}5; -29{,}44)$
f) $P_1 = (6{,}5; -5{,}58)$; $P_2 = (-9{,}6; 4{,}08)$
g) $P_1 = (7{,}9; -131{,}14)$; $P_2 = (6; -116{,}13)$
h) $P_1 = (4{,}9; -86{,}73)$; $P_2 = (9{,}8; -115{,}64)$
i) $P_1 = (-0{,}5; 24{,}94)$; $P_2 = (-4{,}8; 37{,}41)$
j) $P_1 = (-9{,}5; 112{,}88)$; $P_2 = (2{,}1; 34{,})$
k) $P_1 = (5; 45{,}56)$; $P_2 = (-8{,}6; -45{,}56)$

Selbsttest Lineare Funktionen

Lösungen

Aufgaben: **Bestimmen Sie die Schnittstellen mit x- und y-Achse**

a) $y = f(x) = -x + 4$ L: $S_y = (0; 4)$; $S_x = (4;0)$
b) $y = f(x) = -5x - 35$ L: $S_y = (0; -35)$; $S_x = (-7 ;0)$
c) $y = f(x) = -8x - 24$ L: $S_y = (0; -24)$; $S_x = (-3 ;0)$
d) $y = f(x) = 6x + 60$ L: $S_y = (0; 60)$; $S_x = (-10 ;0)$
e) $y = f(x) = -x + 2$ L: $S_y = (0; 2)$; $S_x = (2 ;0)$
f) $y = f(x) = -3x - 6$ L: $S_y = (0; -6)$; $S_x = (-2 ;0)$
g) $y = f(x) = x$ L: $S_y = (0; 0)$; $S_x = (0 ;0)$
h) $y = f(x) = -3x - 27$ L: $S_y = (0; -27)$; $S_x = (-9 ;0)$
i) $y = f(x) = -4x - 24$ L: $S_y = (0; -24)$; $S_x = (-6 ;0)$
j) $y = f(x) = 7x - 7$ L: $S_y = (0; -7)$; $S_x = (1 ;0)$

a) $y = f(x) = -1,1x - 5,83$ L: $S_y = (0; -5,83)$; $S_x = (-5,3 ;0)$
b) $y = f(x) = -8,3x + 66,4$ L: $S_y = (0; 66,4)$; $S_x = (8 ;0)$
c) $y = f(x) = -4,6x + 46$ L: $S_y = (0; 46)$; $S_x = (10 ;0)$
d) $y = f(x) = 6,2x - 31$ L: $S_y = (0; -31)$; $S_x = (5 ;0)$
e) $y = f(x) = -5,3x - 29,15$ L: $S_y = (0; -29,15)$; $S_x = (-5,5 ;0)$
f) $y = f(x) = -8,8x + 20,24$ L: $S_y = (0; 20,24)$; $S_x = (2,3 ;0)$
g) $y = f(x) = 7,9x - 46,61$ L: $S_y = (0; -46,61)$; $S_x = (5,9 ;0)$
h) $y = f(x) = 2,3x - 9,43$ L: $S_y = (0; -9,43)$; $S_x = (4,1 ;0)$
i) $y = f(x) = -2,3x - 15,87$ L: $S_y = (0; -15,87)$; $S_x = (-6,9 ;0)$
j) $y = f(x) = 1,6x - 7,04$ L: $S_y = (0; -7,04)$; $S_x = (4,4 ;0)$
k) $y = f(x) = -1,6x - 2,72$ L: $S_y = (0; -2,72)$; $S_x = (-1,7 ;0)$

Aufgaben: **Bestimmen Sie aus den zwei gegebenen Punkten die Funktionsgleichung**

a) $P_1 = (3; -15)$; $P_2 = (2; -12)$ L: $y = f(x) = -3x - 6$
b) $P_1 = (9; -11)$; $P_2 = (1; -3)$ L: $y = f(x) = -x - 2$
c) $P_1 = (-2; -64)$; $P_2 = (-9; -8)$ L: $y = f(x) = -8x - 80$
d) $P_1 = (-4; 24)$; $P_2 = (-2; 16)$ L: $y = f(x) = -4x + 8$
e) $P_1 = (7; 0)$; $P_2 = (9; 18)$ L: $y = f(x) = 9x - 63$
f) $P_1 = (3; 96)$; $P_2 = (-7; 16)$ L: $y = f(x) = 8x + 72$
g) $P_1 = (6; -12)$; $P_2 = (7; -14)$ L: $y = f(x) = -2x$
h) $P_1 = (1; 110)$; $P_2 = (2; 120)$ L: $y = f(x) = 10x + 100$
i) $P_1 = (-9; 28)$; $P_2 = (9; -98)$ L: $y = f(x) = -7x - 35$
j) $P_1 = (-10; -12)$; $P_2 = (-9; -8)$ L: $y = f(x) = 4x + 28$

a) $P_1 = (-0,8; -0,65)$; $P_2 = (5,5; -41,6)$ L: $y = f(x) = -6,5x - 5,85$
b) $P_1 = (3; 34,02)$; $P_2 = (-8,2; -13,02)$ L: $y = f(x) = 4,2x + 21,42$
c) $P_1 = (0,4; -39,52)$; $P_2 = (-1,7; -31,54)$ L: $y = f(x) = -3,8x - 38$
d) $P_1 = (-7,5; -43,46)$; $P_2 = (-8,2; -46,33)$ L: $y = f(x) = 4,1x - 12,71$
e) $P_1 = (7,8; -151,8)$; $P_2 = (-5,5; -29,44)$ L: $y = f(x) = -9,2x - 80,04$
f) $P_1 = (6,5; -5,58)$; $P_2 = (-9,6; 4,08)$ L: $y = f(x) = -0,6x - 1,68$
g) $P_1 = (7,9; -131,14)$; $P_2 = (6; -116,13)$ L: $y = f(x) = -7,9x - 68,73$
h) $P_1 = (4,9; -86,73)$; $P_2 = (9,8; -115,64)$ L: $y = f(x) = -5,9x - 57,82$
i) $P_1 = (-0,5; 24,94)$; $P_2 = (-4,8; 37,41)$ L: $y = f(x) = -2,9x + 23,49$
j) $P_1 = (-9,5; 112,88)$; $P_2 = (2,1; 34,)$ L: $y = f(x) = -6,8x + 48,28$
k) $P_1 = (5; 45,56)$; $P_2 = (-8,6; -45,56)$ L: $y = f(x) = 6,7x + 12,06$