1.2 Een lijn door twee gegeven punten.

Opgave 14:

a. 1 naar rechts en $\frac{3}{4}$ omhoog , dus $rc_l = \frac{3}{4}$

b. $y_B - y_A = 4 - 1 = 3$

c. $rc_l = \frac{y_B - y_A}{x_B - x_A} = \frac{4-1}{6-2} = \frac{3}{4}$

Opgave 15:

a. voor 2 km meer moet je € 4,- extra betalen, dus $\frac{4}{2} = 2$ $^{euro}/_{km}$

b. $7 - 2 \cdot 2 = 3$ euro

c. $K = 2d + 3$

Opgave 16:

a. $rc_l = \frac{\Delta y}{\Delta x} = \frac{4-1}{1--1} = \frac{3}{2} = 1\frac{1}{2}$

l: $y = 1\frac{1}{2}x + b$ door $(1,4)$

$4 = 1\frac{1}{2} + b$

$2\frac{1}{2} = b$

l: $y = 1\frac{1}{2}x + 2\frac{1}{2}$

b. $rc_m = \frac{\Delta y}{\Delta x} = \frac{0-5}{2--3} = \frac{-5}{5} = -1$

m: $y = -x + b$ door $(2,0)$

$0 = -2 + b$

$2 = b$

m: $y = -x + 2$

c. $rc_n = \frac{\Delta y}{\Delta x} = \frac{3-3}{-7-5} = \frac{0}{-12} = 0$

n: $y = b$ door $(5,3)$

$3 = b$

n: $y = 3$

d. $rc_p = \frac{\Delta y}{\Delta x} = \frac{5--3}{5-1} = \frac{8}{4} = 2$

p: $y = 2x + b$ door $(5,5)$

$5 = 10 + b$

$-5 = b$

p: $y = 2x - 5$

Opgave 17:

a. $rc_l = \frac{\Delta y}{\Delta x} = \frac{250-360}{160-180} = \frac{-110}{-20} = 5{,}5$

l: $y = 5{,}5x + b$ door $(180,360)$

$360 = 990 + b$

$-630 = b$

l: $y = 5{,}5x - 630$

b. $rc_m = \frac{\Delta y}{\Delta x} = \frac{58-73}{45-15} = \frac{-15}{30} = -\frac{1}{2}$

m: $y = -\frac{1}{2}x + b$ door (15,73)

$73 = -7\frac{1}{2} + b$

$80\frac{1}{2} = b$

m: $y = -\frac{1}{2}x + 80\frac{1}{2}$

Opgave 18:

$rc = \frac{\Delta A}{\Delta s} = \frac{750-300}{21-15} = \frac{450}{6} = 75$

$A = 75s + b$ door (15,300)

$300 = 1125 + b$

$-825 = b$

$A = 75s - 825$

Opgave 19:

$rc = \frac{\Delta R}{\Delta t} = \frac{35-10}{60-35} = \frac{25}{25} = 1$

$R = t + b$ door (35,10)

$10 = 35 + b$

$-25 = b$

$R = t - 25$

Opgave 20:

a. $rc = \frac{\Delta p}{\Delta q} = \frac{2{,}25-7{,}75}{425-150} = -0{,}02$

$p = -0{,}02q + b$ door $(150; 7{,}75)$

$7{,}75 = -3 + b$

$10{,}75 = b$

$p = -0{,}02q + 10{,}75$

$0{,}02q = -p + 10{,}75$

$q = -50p + 537{,}5$

b. $p = -0{,}02 \cdot 250 + 10{,}75 = 5{,}75$

$q = -50 \cdot 4{,}25 + 537{,}5 = 325$

Opgave 21:

a. $rc = \frac{\Delta B}{\Delta g} = \frac{1599{,}18-1351{,}66}{2832-2356} = 0{,}52$

$B = 0{,}52g + b$ door $(2356; 1351{,}66)$

$1351{,}66 = 1225{,}12 + b$

$126{,}54 = b$

$B = 0{,}52g + 126{,}54$

b. vastrecht is € 126,54
gasprijs per m³ is € 0,52

Opgave 22:

a. $rc = \frac{\Delta x}{\Delta t} = \frac{7{,}2 - 18{,}2}{17 - 12} = -2{,}2$

$x = -2{,}2t + b$ door $(12;18{,}2)$

$18{,}2 = -26{,}4 + b$

$44{,}6 = b$

$x = -2{,}2t + 44{,}6$

b. $x = -2{,}2 \cdot 19 + 44{,}6 = 2{,}8$ dus 2,8 km

c. $-2{,}2t + 44{,}6 = 0$

$-2{,}2t = -44{,}6$

$t = 20{,}273$

dus 13.20 uur en 20 sec