

$$\begin{aligned}
 \text{g } \frac{2}{3}(1-x) &= \frac{3}{4}(x-3) \\
 12 \cdot \frac{2}{3}(1-x) &= 12 \cdot \frac{3}{4}(x-3) \\
 8(1-x) &= 9(x-3) \\
 8-8x &= 9x-27 \\
 \boxed{-9x} & \quad \boxed{-9x} \\
 8-17x &= -27 \\
 \boxed{-8} & \quad \boxed{-8} \\
 -17x &= -35 \\
 \boxed{: -17} & \quad \boxed{: -17} \\
 x &= \frac{35}{17}
 \end{aligned}$$

$$\begin{aligned}
 \text{h } \frac{3}{4}\left(\frac{1}{5}x+7\right)+1 &= 0 \\
 4 \cdot \frac{3}{4}\left(\frac{1}{5}x+7\right)+4 \cdot 1 &= 4 \cdot 0 \\
 3\left(\frac{1}{5}x+7\right)+4 &= 0 \\
 \frac{3}{5}x+21+4 &= 0 \\
 \frac{3}{5}x+25 &= 0 \\
 \boxed{-25} & \quad \boxed{-25} \\
 \frac{3}{5}x &= -25 \\
 \boxed{: \frac{3}{5}} & \quad \boxed{: \frac{3}{5}} \\
 x &= -41\frac{2}{3}
 \end{aligned}$$

3.5 Lijnen met VU grafiek

bladzijde 102

- 67** a *
 b $y = 2x - 4$. Door $(0, -4)$
 c Een evenwijdige lijn
 d *

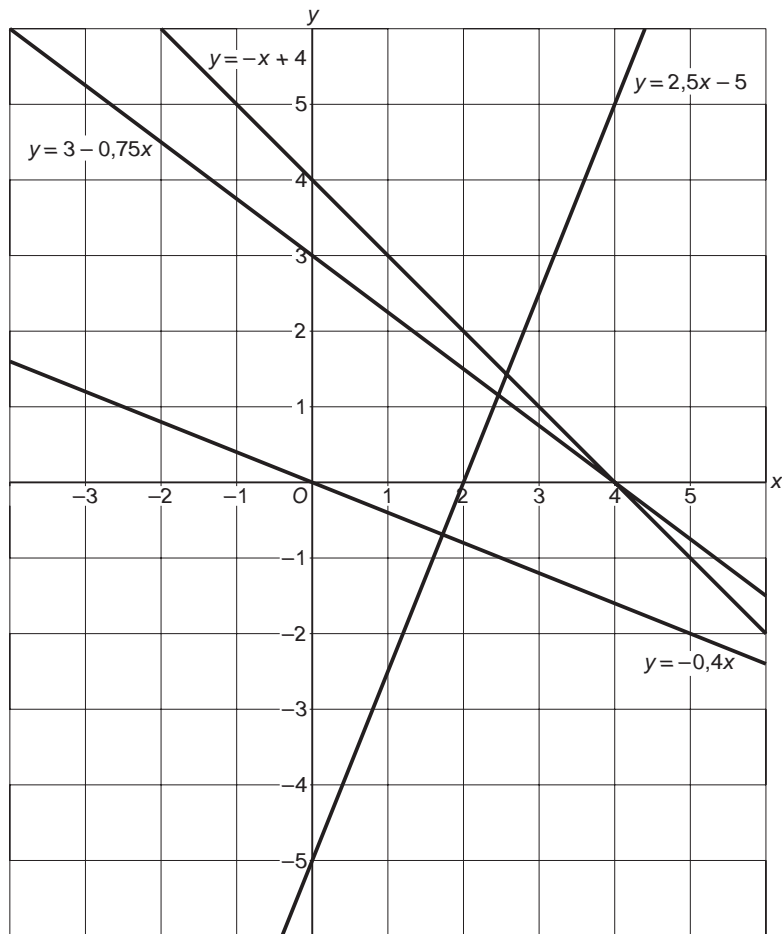
bladzijde 103

- 68** *
69 *

Diagnostische toets

bladzijde 106

- 1** a $\begin{array}{c|c|c} x & 0 & 2 \\ \hline y & -5 & 0 \end{array}$
 b $\begin{array}{c|c|c} x & 0 & 4 \\ \hline y & 4 & 0 \end{array}$
 c $\begin{array}{c|c|c} x & 0 & 5 \\ \hline y & 0 & -2 \end{array}$
 d $\begin{array}{c|c|c} x & 0 & 4 \\ \hline y & 3 & 0 \end{array}$

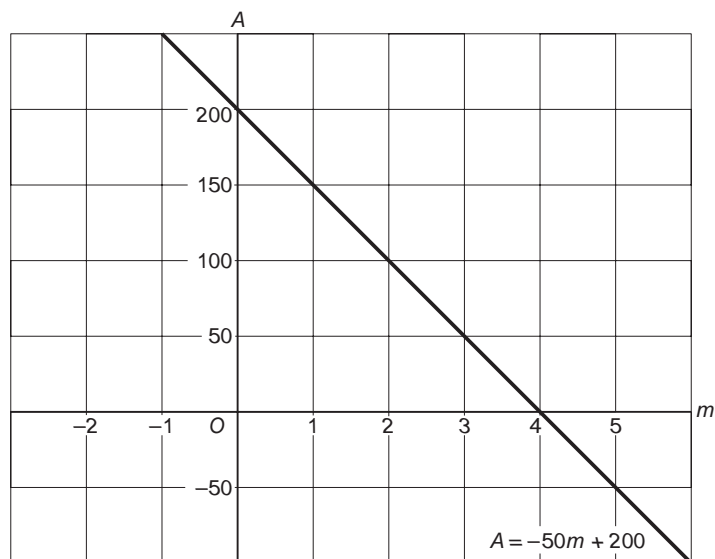


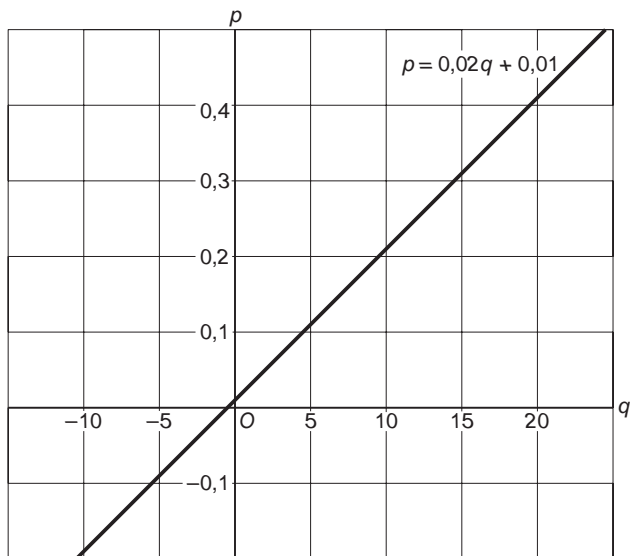
2 a

m	0	4
A	200	0

b

p	0	10	5	-5
q	$0,01$	$0,21$	$0,11$	$-0,09$

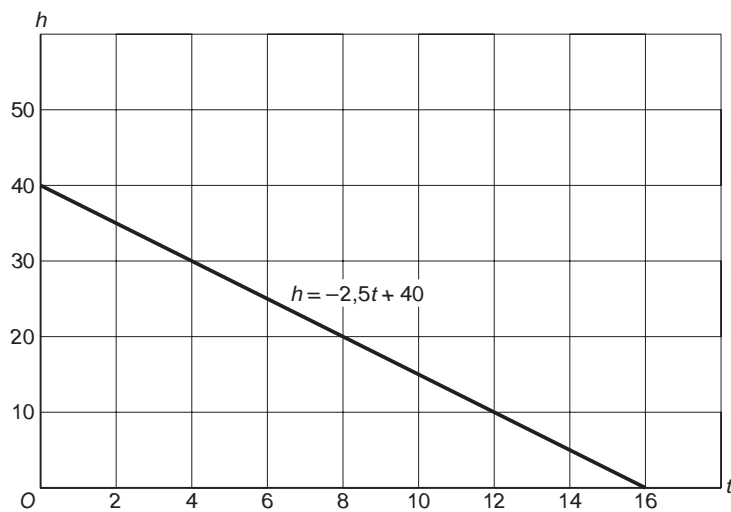




- 3** a $y = 2x - 7$ en $y = 2x + 2$
 b $y = 2x - 7$ en $y = \frac{2}{7}x - 7$ en $y = -2x - 7$

4 a

t	0	4
h	40	30



- b $h = -2,5 \cdot 1,5 + 40$
 $= 36,25$
 c 16 minuten
 d Hoeveel liter per minuut wegloupt.

- 5** k: Stel $y = ax + b$.
 Door (0, 3), dus $b = 3$
 $a = \frac{\text{verticaal}}{\text{horizontaal}} = \frac{3}{1} = 3$
 Dus k: $y = 3x + 3$.

l : Stel $y = ax + b$.

Door $(0, 0)$, dus $b = 0$.

$$a = \frac{\text{verticaal}}{\text{horizontaal}} = \frac{3}{5}$$

Dus $l: y = \frac{3}{5}x$.

m : Stel $y = ax + b$.

Door $(0, 2)$, dus $b = 2$

$$a = \frac{\text{verticaal}}{\text{horizontaal}} = \frac{-1}{2} = -0,5$$

Dus $m: y = -0,5x + 2$.

6 $p: R = r \cdot a + b$.

Door $(0, 240)$, dus $b = 240$.

$$r = \frac{\text{verticaal}}{\text{horizontaal}} = \frac{-40}{10} = -4$$

Dus $p: R = -4a + 240$.

7 $k: y = 5x + 6$

Stel: $l: y = 5x + b$.

Door $A(8, -12)$, dus $-12 = 5 \cdot 8 + b$

$$-12 = 40 + b$$

$$-52 = b$$

Dus $l: y = 5x - 52$.

bladzijde 107

8 a Het bedrag per km is € 0,25.

Het vaste bedrag is € 525.

b $0,25a + 525 = 825$

$$\boxed{-525} \quad \boxed{-525}$$

$$0,25a = 300$$

$$\boxed{: 0,25} \quad \boxed{: 0,25}$$

$$a = 1200$$

Hij heeft 1200 km gereden in april.

c $k = 0,25a + 525 + 6$

$$k = 0,25a + 531$$

d $k = 0,29a + 531$

9 a $-2x - 6 = 16$

$$\boxed{+6} \quad \boxed{+6}$$

$$-2x = 22$$

$$\boxed{: -2} \quad \boxed{: -2}$$

$$x = -11$$

b $-x + 3 = 23$

$$\boxed{-3} \quad \boxed{-3}$$

$$-x = 20$$

$$\boxed{: -1} \quad \boxed{: -1}$$

$$x = -20$$

c $5x = 2$

$$\boxed{: 5} \quad \boxed{: 5}$$

$$x = \frac{2}{5}$$

10 a $3x - 9 = 5x - 4$

$$\boxed{-5x} \quad \boxed{-5x}$$

$$-2x - 9 = -4$$

$$\boxed{+9} \quad \boxed{+9}$$

$$-2x = 5$$

$$\boxed{: -2} \quad \boxed{: -2}$$

$$x = -2\frac{1}{2}$$

b $5x - x = 3x - 2$

$$4x = 3x - 2$$

$$\boxed{-3x} \quad \boxed{-3x}$$

$$x = -2$$

d $5 + 3x = 26$

$$\boxed{-5} \quad \boxed{-5}$$

$$3x = 21$$

$$\boxed{: 3} \quad \boxed{: 3}$$

$$x = 7$$

e $-8x = 0$

$$\boxed{: -8} \quad \boxed{: -8}$$

$$x = 0$$

f $-x - 8 = 0$

$$\boxed{+8} \quad \boxed{+8}$$

$$-x = 8$$

$$\boxed{: -1} \quad \boxed{: -1}$$

$$x = -8$$

c $3,2x - 1,5 = 1,7x - 6$

$$\boxed{-1,7x} \quad \boxed{-1,7x}$$

$$1,5x - 1,5 = -6$$

$$\boxed{+1,5} \quad \boxed{+1,5}$$

$$1,5x = -4,5$$

$$\boxed{: 1,5} \quad \boxed{: 1,5}$$

$$x = -3$$

d $-4a - 1 = -1 + 7a$

$$\boxed{-7a} \quad \boxed{-7a}$$

$$-11a - 1 = -1$$

$$\boxed{+1} \quad \boxed{+1}$$

$$-4a = 7a$$

$$-11a = 0$$

$$\boxed{: -11} \quad \boxed{: -11}$$

$$a = 0$$

11 a $4(x-3) = -7x + 10$
 $4x - 12 = -7x + 10$

$$\begin{array}{r} +7x \\ \hline \end{array} \quad \begin{array}{r} +7x \\ \hline \end{array}$$

$$11x - 12 = 10$$

$$\begin{array}{r} +12 \\ \hline \end{array} \quad \begin{array}{r} +12 \\ \hline \end{array}$$

$$11x = 22$$

$$\begin{array}{r} :11 \\ \hline \end{array} \quad \begin{array}{r} :11 \\ \hline \end{array}$$

$$x = 2$$

b $5 - (x - 3) = 6 - 2x$

$$5 - x + 3 = 6 - 2x$$

$$-x + 8 = 6 - 2x$$

$$\begin{array}{r} +2x \\ \hline \end{array} \quad \begin{array}{r} +2x \\ \hline \end{array}$$

$$x + 8 = 6$$

$$\begin{array}{r} -8 \\ \hline \end{array} \quad \begin{array}{r} -8 \\ \hline \end{array}$$

$$x = -2$$

c $4x = \frac{1}{4}$

$$\begin{array}{r} :4 \\ \hline \end{array} \quad \begin{array}{r} :4 \\ \hline \end{array}$$

$$x = \frac{1}{16}$$

12 a $5(2a - 2) - 3a = -2(3a - 8)$

$$10a - 10 - 3a = -6a + 16$$

$$7a - 10 = -6a + 16$$

$$\begin{array}{r} +6a \\ \hline \end{array} \quad \begin{array}{r} +6a \\ \hline \end{array}$$

$$13a - 10 = 16$$

$$\begin{array}{r} +10 \\ \hline \end{array} \quad \begin{array}{r} +10 \\ \hline \end{array}$$

$$13a = 26$$

$$\begin{array}{r} :13 \\ \hline \end{array} \quad \begin{array}{r} :13 \\ \hline \end{array}$$

$$a = 2$$

b $3 - 5(8 - 4t) = -1 - 4t$

$$3 - 40 + 20t = -1 - 4t$$

$$-37 + 20t = -1 - 4t$$

$$\begin{array}{r} +4t \\ \hline \end{array} \quad \begin{array}{r} +4t \\ \hline \end{array}$$

$$-37 + 24t = -1$$

$$\begin{array}{r} +37 \\ \hline \end{array} \quad \begin{array}{r} +37 \\ \hline \end{array}$$

$$24t = 36$$

$$\begin{array}{r} :24 \\ \hline \end{array} \quad \begin{array}{r} :24 \\ \hline \end{array}$$

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

d $1\frac{3}{4}x = 8$

$$\begin{array}{r} :1\frac{3}{4} \\ \hline \end{array} \quad \begin{array}{r} :1\frac{3}{4} \\ \hline \end{array}$$

$$x = 4\frac{4}{7}$$

e $-5(a - 3) = 15(a - 7) + 2$

$$-5a + 15 = 15a - 105 + 2$$

$$-5a + 15 = 15a - 103$$

$$\begin{array}{r} -15a \\ \hline \end{array} \quad \begin{array}{r} -15a \\ \hline \end{array}$$

$$-20a + 15 = -103$$

$$\begin{array}{r} -15 \\ \hline \end{array} \quad \begin{array}{r} -15 \\ \hline \end{array}$$

$$-20a = -118$$

$$\begin{array}{r} : -20 \\ \hline \end{array} \quad \begin{array}{r} : -20 \\ \hline \end{array}$$

$$a = 5,9$$

f $\frac{1}{3}t + 1 = 9$

$$\begin{array}{r} -1 \\ \hline \end{array} \quad \begin{array}{r} -1 \\ \hline \end{array}$$

$$\frac{1}{3}t = 8$$

$$\begin{array}{r} : \frac{1}{3} \\ \hline \end{array} \quad \begin{array}{r} : \frac{1}{3} \\ \hline \end{array}$$

$$t = 24$$

c $-\frac{2}{5}x + 8 = \frac{1}{2}x$

$$\begin{array}{r} -\frac{1}{2}x \\ \hline \end{array} \quad \begin{array}{r} -\frac{1}{2}x \\ \hline \end{array}$$

$$-\frac{9}{10}x + 8 = 0$$

$$\begin{array}{r} -8 \\ \hline \end{array} \quad \begin{array}{r} -8 \\ \hline \end{array}$$

$$-\frac{9}{10}x = -8$$

$$\begin{array}{r} : -\frac{9}{10} \\ \hline \end{array} \quad \begin{array}{r} : -\frac{9}{10} \\ \hline \end{array}$$

$$x = 8\frac{8}{9}$$

d $1\frac{1}{4}x - \frac{1}{2} = \frac{1}{8}(x + 5) - 9$

$$8 \cdot 1\frac{1}{4}x - 8 \cdot \frac{1}{2} = 8 \cdot \frac{1}{8}(x + 5) - 8 \cdot 9$$

$$10x - 4 = x + 5 - 72$$

$$10x - 4 = x - 67$$

$$\begin{array}{r} -x \\ \hline \end{array} \quad \begin{array}{r} -x \\ \hline \end{array}$$

$$9x - 4 = -67$$

$$\begin{array}{r} +4 \\ \hline \end{array} \quad \begin{array}{r} +4 \\ \hline \end{array}$$

$$9x = -63$$

$$\begin{array}{r} :9 \\ \hline \end{array} \quad \begin{array}{r} :9 \\ \hline \end{array}$$

$$x = -7$$

13 a $W = 2 \cdot 40 + 0,5 \cdot 32 - 35$
 $= 80 + 16 - 35$
 $= 96 - 35$
 $= \text{€ } 61$

b $2 \cdot 37 + 0,5T - 35 = 58$
 $74 + 0,5T - 35 = 58$
 $0,5T + 39 = 58$

-39	-39
$0,5T$	$= 19$
: 0,5	: 0,5
T	$= 38$

Anne heeft dus 38 tijdschriften verkocht.

Herhaling

bladzijde 108

1

x	0	2
y	4	1

