



Education and Sport Development

Department of Education and Sport Development
Departement van Onderwys en Sportontwikkeling
Lefapha la Thuto le Tlhabololo ya Metshameko

NORTH WEST PROVINCE

**NASIONALE
SENIOR SERTIFIKAAT**

GRAAD 12

**WISKUNDE V1
SEPTEMBER 2018
MEMORANDUM**

PUNTE: 150

Hierdie memorandum bestaan uit 15 bladsye.

LET WEL:

- Indien 'n kandidaat 'n vraag TWEE KEER beantwoord, merk slegs die EERSTE poging.
- Volgehoue akkuraatheid is in ALLE aspekte van die memorandum van toepassing.

VRAAG 1

1.1.1	$2x(5x - 3) = 0$ $2x = 0 \quad \text{of} \quad 5x - 3 = 0$ $x = 0 \qquad \qquad 5x = 3$ $\qquad \qquad \qquad x = \frac{3}{5}$	$\checkmark x = 0$ $\checkmark x = \frac{3}{5}$	(2)
1.1.2	$-x^2 + 4 = 5x$ $-x^2 - 5x + 4 = 0$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ $= \frac{5 \pm \sqrt{(-5)^2 - 4(-1)(4)}}{2(-1)}$ $= \frac{5 \pm \sqrt{41}}{-2}$ $x = -5,70 \quad \text{of} \quad x = 0,70$	\checkmark standaardvorm \checkmark substitusie in die korrekte formule $\checkmark x = -5,70$ $\checkmark x = 0,70$	(4)
1.1.3	$\sqrt{x-6} - 2 = \frac{15}{\sqrt{x-6}}$ $\text{Stel } k = \sqrt{x-6}$ $k - 2 = \frac{15}{k}$ $k^2 - 2k - 15 = 0$ $(k - 5)(k + 3) = 0$ $k = 5 \qquad \text{of} \qquad k = -3$ $\sqrt{x-6} = 5 \quad \text{of} \quad \sqrt{x-6} = -3$ $x - 6 = 25 \qquad \qquad \qquad n.v.t.$ $x = 31$	$\checkmark k^2 - 2k - 15 = 0$ $\checkmark (k - 5)(k + 3) = 0$ $\checkmark k = 5 \text{ of } k = -3$ $\checkmark \sqrt{x-6} = -3 \text{ n.v.t.}$ $\checkmark x = 31$	(5)
1.1.4	$(x^2 + 2)(x - 3) < 0$ $(x^2 + 2) > 0$ $\therefore (x - 3) < 0$ $x < 3$	$\checkmark (x - 3) < 0$ $\checkmark x < 3$	(2)

1.2

$x + 2y = 3$

$x = 3 - 2y$ (1)

$3x^2 + 4xy + 9y^2 - 16 = 0$ (2)

$3(3 - 2y)^2 + 4(3 - 2y)y + 9y^2 - 16 = 0$

$3(9 - 12y + 4y^2) + 12y - 8y^2 + 9y^2 - 16 = 0$

$27 - 36y + 12y^2 + 12y - 8y^2 + 9y^2 - 16 = 0$

$13y^2 - 24y + 11 = 0$

$(13y - 11)(y - 1) = 0$

$y = \frac{11}{13}$ of $y = 1$

$x = 3 - 2\left(\frac{11}{13}\right)$ of $x = 3 - 2(1)$

$= \frac{17}{13}$ = 1

OF

$x + 2y = 3$

$2y = 3 - x$

$y = \frac{3 - x}{2}$ (1)

$3x^2 + 4xy + 9y^2 - 16 = 0$ (2)

$3x^2 + 4x\left(\frac{3 - x}{2}\right) + 9\left(\frac{3 - x}{2}\right)^2 - 16 = 0$

$3x^2 + 6x - 2x^2 + \frac{9(9 - 6x + x^2)}{4} - 16 = 0$

$12x^2 + 24x - 8x^2 + 81 - 54x + 9x^2 - 64 = 0$

$13x^2 - 30x + 17 = 0$

$(13x - 17)(x - 1) = 0$

$x = \frac{17}{13}$ of $x = 1$

$y = \frac{3 - \frac{17}{13}}{2}$ of $y = \frac{3 - 1}{2}$

$= \frac{11}{13}$ = 1

✓ $x = 3 - 2y$

✓ substitusie

✓ standaardvorm

✓ faktore of formule

$y = \frac{24 \pm \sqrt{(-24)^2 - 4(13)(11)}}{2(13)}$

✓ beide y-waardes

✓ beide x-waardes

(6)

✓ $y = \frac{3 - x}{2}$

✓ substitusie

✓ standaardvorm

✓ faktore of formule

$x = \frac{30 \pm \sqrt{(-30)^2 - 4(13)(17)}}{2(13)}$

✓ beide x-waardes

✓ beide y-waardes

(6)

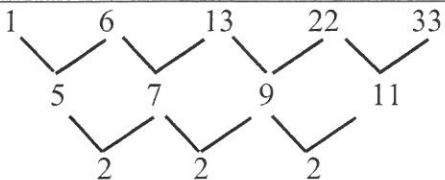
1.3	$2^{2022} \cdot 5^{2018}$ $= 2^{2018+4} \cdot 5^{2018}$ $= 2^{2018} \cdot 2^4 \cdot 5^{2018}$ $= (2.5)^{2018} \cdot 16$ $= 10^{2018} \cdot 16$ $= (100000000.....)(16)$ $= (160000000.....)$ <p>Som van syfers = $1 + 6 = 7$</p>	<p>✓ $2^{2018} \cdot 2^4 \cdot 5^{2018}$</p> <p>✓ $(2.5)^{2018} \cdot 16$</p> <p>✓ (160000000.....)</p> <p>✓ Som van syfers = 7</p> <p style="text-align: right;">(4) [23]</p>
-----	---	--

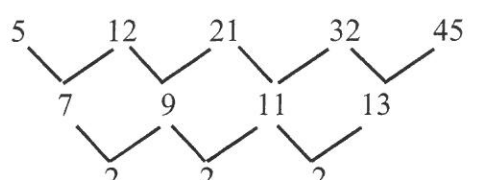
VRAAG 2

2.1.1	$\frac{T_2}{T_1} = \frac{T_3}{T_2}$ $\frac{x-1}{x+1} = \frac{2x-5}{x-1}$ $(x-1)^2 = (2x-5)(x+1)$ $x^2 - 2x + 1 = 2x^2 - 3x - 5$ $0 = x^2 - x - 6$ $0 = (x-3)(x+2)$ $x = 3 \text{ of } x = -2$	<p>✓ $\frac{x-1}{x+1} = \frac{2x-5}{x-1}$</p> <p>✓ vereenvoudiging</p> <p>✓ standaardvorm</p> <p>✓ faktore</p> <p>✓ beide antwoorde</p> <p style="text-align: right;">(5)</p>
2.1.2	<p>As $x = 3$: As $x = -2$:</p> <p>$R_1: 4; 2; 1$ $R_2: -1; -3; -9$</p> <p>$r = \frac{1}{2}$ $r = 3$</p> <p>Vir konvergerend: $-1 < r < 1$</p> <p style="text-align: center;">$\therefore x = 3$</p>	<p>✓✓ beide r-waardes</p> <p>✓ $-1 < r < 1$</p> <p>✓ $x = 3$</p> <p style="text-align: right;">(4)</p>
2.1.3	$S_\infty = \frac{a}{1-r}$ $= \frac{4}{1-\frac{1}{2}}$ $= 8$	<p>✓ substitusie</p> <p>✓ antwoord</p> <p style="text-align: right;">(2)</p>

2.2	$1 + 2 + 4 + \dots \quad (30 \text{ terme})$ $S_n = \frac{a(r^n - 1)}{r - 1}$ $S_{30} = \frac{1(2^{30} - 1)}{2 - 1}$ $= 1\,073\,741\,823$ <p>\therefore die 2^{de} opsie is die beste</p>	<p>✓ substitusie ✓ antwoord ✓ opsie 2</p> <p>(3) [14]</p>
-----	--	--

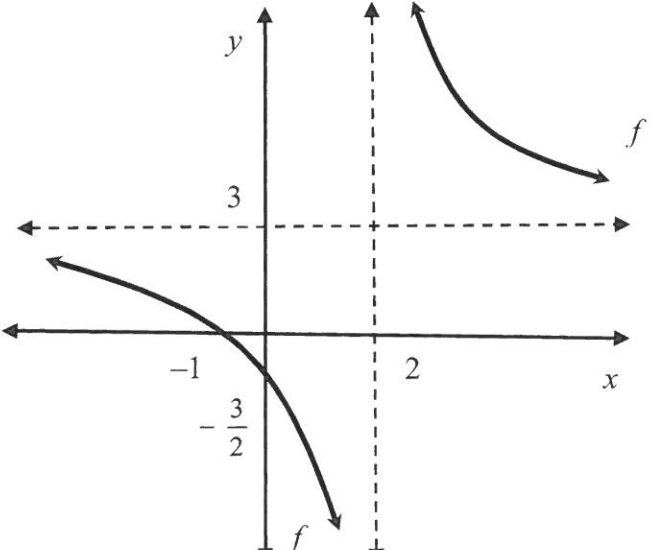
VRAAG 3

3.1	 <p> $2a = 2$ $a = 1$ $T_2 - T_1 = 3a + b$ $5 = 3(1) + b$ $b = 2$ $T_1 = a + b + c$ $1 = 1 + 2 + c$ $c = -2$ $T_n = n^2 + 2n - 2$ </p>	<p>✓ eerste en tweede verskille</p> <p>✓ $a = 1$</p> <p>✓ $b = 2$</p> <p>✓ $c = -2$</p> <p>(4)</p>
3.2	$T_{15} = 15^2 + 2(15) - 2$ $= 253$ <p>\therefore 7^{de} stoel in ry 15 = $253 + 6$</p> $= 259$	<p>✓ substitusie</p> <p>✓ antwoord</p> <p>(2)</p>
3.3	<p>Ry van aantal stoele: 5 ; 7 ; 9 ; 11 ; ...</p> $T_n = a(n - 1)d$ $T_{25} = 5 + (25 - 1)(2)$ $= 53$ <p>\therefore 53 stoele in ry 25</p> <p>OF</p>	<p>✓ ry</p> <p>✓ substitusie</p> <p>✓ antwoord</p> <p>(3)</p>

	<p>Ry van laaste stoel in elke ry</p>  <p> $2a = 2$ $a = 1$ $T_2 - T_1 = 3a + b$ $7 = 3(1) + b$ $b = 4$ $T_1 = a + b + c$ $5 = 1 + 4 + c$ $c = 0$ $T_n = n^2 + 4n$ $T_{25} = (25)^2 + 4(25)$ $= 725$ $T_{24} = (24)^2 + 4(24)$ $= 672$ \therefore Aantal stoele in ry 25 = $725 - 672$ $= 53$ </p>	<p>✓ algemene term</p> <p>✓ antwoord van beide terme</p> <p>✓ antwoord</p> <p>(3)</p>
<p>3.4</p>	<p>Ry van aantal stoele per ry : 5; 7; 9; 11</p> <p> $S_n = \frac{n}{2}[2a + (n - 1)d]$ $2\ 000 = \frac{n}{2}[2(5) + (n - 1)(2)]$ $2\ 000 = 5n + n^2 - n$ $0 = n^2 + 4n - 2\ 000$ $n = \frac{-4 \pm \sqrt{4^2 - 4(1)(-2\ 000)}}{2(1)}$ $n = -46,77$ of $n = 42,77$ <i>n.v.t.</i> $n = 42$ \therefore 42 volledige rye </p> <p>OF</p>	<p>✓ substitusie</p> <p>✓ standaardvorm</p> <p>✓ substitusie in formule</p> <p>✓ $n = 42,77$</p> <p>✓ $n = 42$</p> <p>(5)</p>

	<p>Laaste stoel van elke ry: 5; 7; 9; 11</p> $T_n = n^2 + 4n$ $2000 = n^2 + 4n$ $0 = n^2 + 4n - 2000$ $n = \frac{-4 \pm \sqrt{4^2 - 4(1)(-2000)}}{2(1)}$ $n = -46,77 \text{ of } n = 42,77$ <p style="text-align: center;"><i>n.v.t.</i> <i>n = 42</i></p> <p>\therefore 42 volledige rye</p>	<p>✓ substitusie</p> <p>✓ standaardvorm</p> <p>✓ substitusie in formule</p> <p>✓ $n = 42,77$</p> <p>✓ $n = 42$</p> <p style="text-align: right;">(5) [14]</p>
--	---	---

VRAAG 4

4.1	$f(x) = \frac{a}{x-2} + 3$ $0 = \frac{a}{-1-2} + 3$ $-3 = \frac{a}{-3}$ $9 = a$ $f(x) = \frac{9}{x-2} + 3$	<p>✓ $f(x) = \frac{a}{x-2} + 3$</p> <p>✓ Substitusie B(-1; 0)</p> <p>✓ $a = 9$</p> <p style="text-align: right;">(3)</p>
4.2	$y = \frac{9}{0-2} + 3$ $= \frac{9}{-2} + 3$ $= -\frac{3}{2} \therefore \left(0; -\frac{3}{2}\right) \text{ OF } y = -1\frac{1}{2} \therefore \left(0; -1\frac{1}{2}\right)$	<p>✓ $x = 0$</p> <p>✓ antwoord</p> <p style="text-align: right;">(2)</p>
4.3		<p>✓ x- en y-afsnitte</p> <p>✓ beide asimptote</p> <p>✓ vorm</p> <p style="text-align: right;">(3) [8]</p>

VRAAG 5

5.1	$x = -1$	✓ $x = -1$ (1)
5.2	$y = \frac{2}{0+1} - 3$ $= 2 - 3$ $= -1$ $\therefore P(0; -1)$	✓ $x = 0$ ✓ $y = -1$ (2)
5.3	$f(x) = a(x+1)^2 - 3$ $-1 = a(0-1)^2 - 3$ $a = 2$ $f(x) = 2(x+1)^2 - 3$	✓ $f(x) = a(x+1)^2 - 3$ ✓ $-1 = a(0-1)^2 - 3$ ✓ $a = 2$ (3)
5.4	$h(x) = -(x+1) - 3$ $= -x - 1 - 3$ $= -x - 4$ <p>OF</p> $h(x) = -x + c$ $-3 = -(-1) + c$ $c = -4$ $h(x) = -x - 4$	✓ $h(x) = -(x+1) - 3$ ✓ antwoord (2) ✓ $-3 = -(-1) + c$ ✓ antwoord (2)
5.5	$h(x) = -x - 4$ $k > 3$	✓✓ $k > 3$ (2)
5.6	$m(x) = \frac{2}{2x+1} - 3 + 5$ $= \frac{2}{2\left(x + \frac{1}{2}\right)} + 2$ $= \frac{1}{x + \frac{1}{2}} + 2$ $x \in \mathbb{R}; x \neq -\frac{1}{2}$	✓ $m(x) = \frac{2}{2x+1} - 3 + 5$ ✓ $\frac{1}{x + \frac{1}{2}} + 2$ ✓ $x \in \mathbb{R}; x \neq -\frac{1}{2}$ (3) [13]

VRAAG 7

7.1	$P = \frac{x[1 - (1 + i)^{-n}]}{i}$ $2\,000\,000 = \frac{35\,000 \left[1 - \left(1 + \frac{0,093}{12} \right)^{-n} \right]}{\frac{0,093}{12}}$ $\frac{31}{70} = 1 - \left(1 + \frac{0,093}{12} \right)^{-n}$ $\left(1 + \frac{0,093}{12} \right)^{-n} = \frac{39}{70} \quad \text{OF} \quad \log \left(1 + \frac{0,093}{12} \right)^{-n} = \log \frac{39}{70}$ $-n = \log_{\left(1 + \frac{0,093}{12} \right)} \frac{39}{70} \quad -n = \frac{\log \frac{39}{70}}{\log \left(1 + \frac{0,093}{12} \right)}$ $n = 75,77$ <p>\therefore Hy sal vir 75 maande op sy belegging kan leef</p>	<ul style="list-style-type: none"> ✓ substitusie van i ✓ substitusie in korrekte formule ✓ vereenvoudig ✓ korrekte gebruik van log ✓ antwoord <p style="text-align: right;">(5)</p>
7.2.1	$A = P(1 + i)^n$ $= 1\,200\,000(1 + 0,075)^6$ $= R1\,851\,961,83$ <p>Hy benodig = R 1 851 961,83 – 400 000</p> $= R 1 451 961,83$	<ul style="list-style-type: none"> ✓ substitusie ✓ R1 851 961,83 ✓ antwoord <p style="text-align: right;">(3)</p>
7.2.2	$A = P(1 + i)^n$ $1\,451\,961,83 = P \left(1 + \frac{0,11}{4} \right)^2$ $P = 1\,375\,281,30$ $F = \frac{x[(1 + i)^n - 1]}{i}$ $1\,375\,281,30 = \frac{x \left[\left(1 + \frac{0,11}{4} \right)^{21} - 1 \right]}{\frac{0,11}{4}}$ $x = R49\,261,76$ <p>OF</p>	<ul style="list-style-type: none"> ✓ substitusie ✓ substitusie van i ✓ substitusie van n ✓ substitusie in korrekte formule ✓ antwoord <p style="text-align: right;">(5)</p>

	$F = \frac{x(1+i)\left[(1+i)^n - 1\right]}{i}$ $1\,451\,961,83 = \frac{x\left(1 + \frac{0,11}{4}\right)^2 \cdot \left[\left(1 + \frac{0,11}{4}\right)^{21} - 1\right]}{\frac{0,11}{4}}$ $x = R\,49\,261,76$	<ul style="list-style-type: none"> ✓ $\left(1 + \frac{0,11}{4}\right)^2$ ✓ substitusie van i ✓ substitusie van n ✓ substitusie in korrekte formule ✓ antwoord <p style="text-align: right;">(5)</p>
7.2.3	<p>Kwartaallike deposito om R 8 000 aan die einde van elke jaar te onttrek vanaf die 2de tot 5de jaar:</p> $F = \frac{x\left[(1+i)^n - 1\right]}{i}$ $8\,000 = \frac{x\left[\left(1 + \frac{0,11}{4}\right)^4 - 1\right]}{\frac{0,11}{4}}$ $x = R\,1\,919,36$ <p>Nuwe kwartaallike deposito $= 49\,261,76 + 1\,919,36$ $= R\,51\,181,12$</p>	<ul style="list-style-type: none"> ✓ substitusie van n ✓ substitusie in korrekte formule ✓ $x = R\,1\,919,36$ ✓ antwoord <p style="text-align: right;">(4) [17]</p>

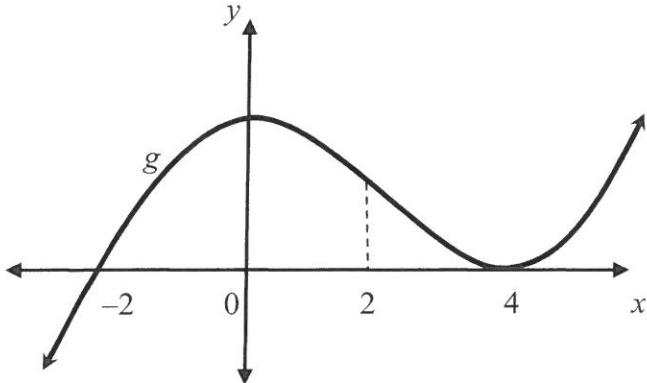
VRAAG 8

8.1	$f(x) = 2x^2 - 5x + 3$ $f(x+h) = 2(x+h)^2 - 5(x+h) + 3$ $= 2(x^2 + 2xh + h^2) - 5x - 5h + 3$ $= 2x^2 + 4xh + 2h^2 - 5x - 5h + 3$ $f(x+h) - f(x) = 2x^2 + 4xh + 2h^2 - 5x - 5h + 3$ $- (2x^2 - 5x + 3)$ $= 4xh + 2h^2 - 5h$ $f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$ $= \lim_{h \rightarrow 0} \frac{4xh + 2h^2 - 5h}{h}$ $= \lim_{h \rightarrow 0} \frac{h(4x + 2h - 5)}{h}$ $= \lim_{h \rightarrow 0} (4x + 2h - 5)$ $= 4x - 5$	<ul style="list-style-type: none"> ✓ $2(x+h)^2 - 5(x+h) + 3$ ✓ $4xh + 2h^2 - 5h$ ✓ formule ✓ faktore ✓ antwoord <p style="text-align: right;">(5)</p>
-----	--	--

	<p>OF</p> $f(x) = 2x^2 - 5x + 3$ $f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$ $= \lim_{h \rightarrow 0} \frac{2(x+h)^2 - 5(x+h) + 3 - (2x^2 - 5x + 3)}{h}$ $= \lim_{h \rightarrow 0} \frac{2(x^2 + 2xh + h^2) - 5x - 5h + 3 - 2x^2 + 5x - 3}{h}$ $= \lim_{h \rightarrow 0} \frac{2x^2 + 4xh + 2h^2 - 5x - 5h + 3 - 2x^2 + 5x - 3}{h}$ $= \lim_{h \rightarrow 0} \frac{4xh + 2h^2 - 5h}{h}$ $= \lim_{h \rightarrow 0} \frac{h(4x + 2h - 5)}{h}$ $= \lim_{h \rightarrow 0} (4x + 2h - 5)$ $= 4x - 5$	<p>✓ formule</p> <p>✓ $2(x+h)^2 - 5(x+h) + 3$</p> <p>✓ $4xh + 2h^2 - 5h$</p> <p>✓ faktore</p> <p>✓ antwoord</p> <p>(5)</p>
<p>8.2</p>	$y = \frac{2x^2}{3\sqrt{x}} - \frac{2x^3 + 1}{x^3}$ $= \frac{2x^2}{3x^{\frac{1}{2}}} - 2 - \frac{1}{x^3}$ $= \frac{2}{3}x^{\frac{3}{2}} - 2 - x^{-3}$ $\frac{dy}{dx} = x^{\frac{1}{2}} + 3x^{-4}$	<p>✓ $\frac{2}{3}x^{\frac{3}{2}}$</p> <p>✓ -2</p> <p>✓ $-x^{-3}$</p> <p>✓ $x^{\frac{1}{2}}$</p> <p>✓ $3x^{-4}$</p> <p>(5)</p> <p>[10]</p>

VRAAG 9

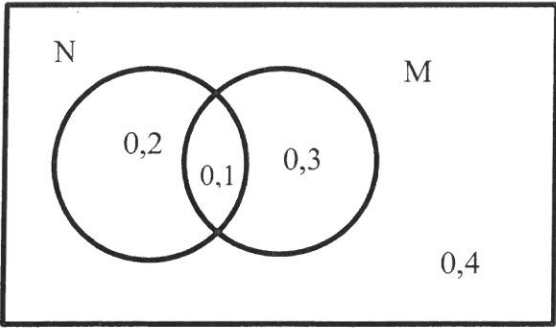
<p>9.1.1</p>	$f(x) = -2x^3 + 5x^2 + 4x - 3$ $0 = (x - 3)(-2x^2 - x + 1)$ $x - 3 = 0 \quad \text{of} \quad -2x^2 - x + 1 = 0$ $x = 3 \quad \quad \quad 2x^2 + x - 1 = 0$ $(3; 0) \quad \quad (2x - 1)(x + 1) = 0$ $2x = 1 \quad \text{of} \quad x = -1$ $x = \frac{1}{2} \quad \quad (-1; 0)$ $\left(\frac{1}{2}; 0\right)$	<p>✓ $-2x^2 - x + 1$</p> <p>✓ (3; 0)</p> <p>✓ faktore of formule</p> <p>✓ beide koördinate</p> <p>$\left(\frac{1}{2}; 0\right) \quad (-1; 0)$</p> <p>(4)</p>
--------------	---	--

<p>9.1.2</p>	$f'(x) = -6x^2 + 10x + 4$ $0 = -6x^2 + 10x + 4$ $3x^2 - 5x - 2 = 0$ $(3x + 1)(x - 2) = 0 \text{ of } x = \frac{-10 \pm \sqrt{10^2 - 4(-6)(4)}}{2(-6)}$ $3x = -1 \text{ of } x = 2$ $x = -\frac{1}{3}$	<ul style="list-style-type: none"> ✓ $-6x^2 + 10x + 4$ ✓ $f'(x) = 0$ ✓ faktore of formule ✓ beide x antwoorde <p style="text-align: right;">(4)</p>
<p>9.1.3</p>	$f''(x) = -12x + 10$ $0 = -12x + 10$ $12x = 10$ $x = \frac{10}{12} = \frac{5}{6}$ $\therefore x < \frac{5}{6}$	<ul style="list-style-type: none"> ✓ $0 = -12x + 10$ ✓ $x < \frac{5}{6}$ <p style="text-align: right;">(2)</p>
<p>9.2.1</p>		<ul style="list-style-type: none"> ✓ vorm ✓ beide x-afsnitte ✓ x-waardes van beide draaipunte ✓ x-waarde van buigpunt <p style="text-align: right;">(4)</p>
<p>9.2.2</p>	$x < -2 \text{ of } x > 2; x \neq 4$	<ul style="list-style-type: none"> ✓ $x < -2$ ✓ $x > 2$ ✓ $x \neq 4$ <p style="text-align: right;">(3) [17]</p>

VRAAG 10

10.1	$N(t) = t^3 - 12t^2 + 36t + 8$ $N(0) = 8$ \therefore 8 mense	✓ antwoord (1)
10.2	$N'(t) = 3t^2 - 24t + 36$ toenemend $N'(t) \geq 0$ $3t^2 - 24t + 36 \geq 0$ $t^2 - 8t + 12 \geq 0$ $(t - 6)(t - 2) \geq 0$ $t \geq 6$ of $t \leq 2$ \therefore vir eerste 2 ure na oopmaaktyd of 6 ure na oopmaaktyd tot sluitingstyd	✓ $N'(t) = 3t^2 - 24t + 36$ ✓ $N'(t) \geq 0$ ✓ $(t - 6)(t - 2)$ ✓ $t \geq 6$ ✓ $t \leq 2$ (5)
10.3	Minimum draaipunt by $t = 6$ ure na opening	✓ $t = 6$ (1) [7]

VRAAG 11

11.1.1	 <p>OF</p> $P(M \text{ of } N) = P(M) + P(N) - P(M \text{ en } N)$ $0,6 = 0,4 + 0,3 - P(M \text{ en } N)$ $P(M \text{ en } N) = 0,4 + 0,3 - 0,6$ $= 0,1$	✓ $P(N \text{ en } M') = 0,2$ ✓ $P(M \text{ en } N') = 0,3$ ✓ $P(N \text{ of } M') = 0,4$ ✓✓ $P(M \text{ en } N) = 0,1$ (5)
11.1.2	$LK = P(M \text{ en } N)$ $= 0,1$ $RK = P(M) \times P(N)$ $= (0,4)(0,3)$ $= 0,12$ $\therefore P(M \text{ en } N) \neq P(M) \times P(N)$ \therefore M en N is nie onafhanklik nie	✓ $P(M \text{ en } N) = 0,1$ ✓ $P(M) \cdot P(N) =$ $(0,4)(0,3)$ ✓ $0,12$ ✓ $P(M \text{ en } N)$ $\neq P(M) \times P(N)$ ✓ Nee, nie onafhanklik nie (5)

11.2	$1 \times 8 \times 7 \times 6 \times 2$ $= 672$ OF $(1 \times 8 \times 7 \times 6 \times 1) + (1 \times 8 \times 7 \times 6 \times 1)$ $= 672$	$\checkmark 1 \times$ $\checkmark 8 \times 7 \times 6$ $\checkmark \times 2$ $\checkmark 672$ (4) $\checkmark 1 \times$ $\checkmark 8 \times 7 \times 6 \times 1$ $\checkmark + (1 \times 8 \times 7 \times 6 \times 1)$ $\checkmark 672$ (4) [14]
		TOTAAL: 150

