basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE/ *NASIONALE SENIOR SERTIFIKAAT*

GRADE 12/*GRAAD* 12

MATHEMATICS P1/*WISKUNDE V1*

NOVEMBER 2018

MARKING GUIDELINES/*NASIENRIGLYNE*

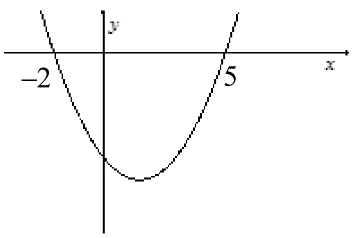
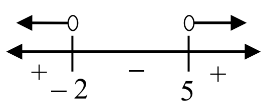
MARKS: 150
PUNTE: 150

These marking guidelines consist of 18 pages.
Hierdie nasienriglyne bestaan uit* 18 *bladsye

NOTE:
- If a candidate answers a question TWICE, only mark the FIRST attempt.
- Consistent Accuracy applies in all aspects of the marking memorandum.

LET WEL:
- *Indien 'n kandidaat 'n vraag TWEE keer beantwoord, merk slegs die EERSTE poging.*
- *Volgehoue akkuraatheid is op ALLE aspekte van die nasienriglyne van toepassing.*

QUESTION/*VRAAG* 1

1.1.1	$x^2-4x+3=0$ $(x-3)(x-1)=0$ $x=3$ or $x=1$	✓factors/correct subt in formula ✓ $x=3$ ✓ $x=1$ (3)
1.1.2	$5x^2-5x+1=0$ $x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$ $=\frac{5\pm\sqrt{25-4(5)(1)}}{2(5)}$ $=\frac{5\pm\sqrt{5}}{10}$ $x=0{,}72$ or $x=0{,}28$	✓substitution into the correct formula ✓$x=0{,}72$ ✓$x=0{,}28$ (3)
1.1.3	$x^2-3x-10>0$ $(x-5)(x+2)>0$ **OR/OF**   $x<-2$ or $x>5$	✓factors/ critical values ✓✓ $x<-2$ or $x>5$ (3)
1.1.4	$3\sqrt{x}=x-4$ $9x=x^2-8x+16$ $x^2-17x+16=0$ $(x-16)(x-1)=0$ $x=16$ or $x=1$ NA	✓ squaring both sides ✓ $x^2-17x+16=0$ ✓ factors ✓ answer with selection (4)

	OR/OF $3x^{\frac{1}{2}} = x - 4$ $x - 3x^{\frac{1}{2}} - 4 = 0$ $\left(x^{\frac{1}{2}} - 4\right)\left(x^{\frac{1}{2}} + 1\right) = 0$ $x^{\frac{1}{2}} = 4$ or $x^{\frac{1}{2}} = -1$ $x = 16$ NA	**OR/OF** ✓ standard form ✓ recognize $x = \left(x^{\frac{1}{2}}\right)^2$ ✓ factors ✓ answer with selection (4)
1.2	$2y + 9x^2 = -1$......(1) $3x - y = 2$ ...... (2) $y = 3x - 2$ ....(3) $2(3x-2) + 9x^2 = -1$ $6x - 4 + 9x^2 = -1$ $9x^2 + 6x - 3 = 0$ $3x^2 + 2x - 1 = 0$ $(3x-1)(x+1) = 0$ $x = \frac{1}{3}$ or $x = -1$ $y = -1$ or $y = -5$	✓ $y = 3x - 2$ ✓substitution ✓ standard form ✓factors ✓both x values ✓both y values (6)
	OR/OF $2y + 9x^2 = -1$......(1) $3x - y = 2$ ...... (2) $x = \frac{y+2}{3}$ $2y + 9\left(\frac{y+2}{3}\right)^2 = -1$ $2y + 9\left(\frac{y^2+4y+4}{9}\right) = -1$ $2y + y^2 + 4y + 4 + 1 = 0$ $y^2 + 6y + 5 = 0$ $(y+5)(y+1) = 0$ $y = -1$ or $y = -5$ $x = \frac{1}{3}$ or $x = -1$	**OR/OF** ✓ $x = \frac{y+2}{3}$ ✓substitution ✓ standard form ✓factors ✓both y values ✓both x values (6)

<table>
<tr><td>1.3</td><td>

$3^{9x} = 64$
$\left(3^{3x}\right)^3 = (4)^3$
$3^{3x} = 4$

$5^{\sqrt{p}} = 64$
$\sqrt{5}^{\sqrt{p}} = \sqrt{64}$
$\sqrt{5}^{\sqrt{p}} = 8$
$\frac{\left[3^{x-1}\right]^3}{\sqrt{5}^{\sqrt{p}}} = \frac{3^{3x-3}}{\sqrt{5}^{\sqrt{p}}}$ **OR/OF** $= \frac{3^{3x}.3^{-3}}{5^{\frac{\sqrt{p}}{2}}}$
$= \frac{3^{3x}}{27 \times \sqrt{5}^{\sqrt{p}}}$ $= \frac{\sqrt[3]{64}.3^{-3}}{\sqrt{64}}$
$= \frac{4}{27 \times 8}$
$= \frac{1}{54}$

OR/OF
$\frac{\left(3^{x-1}\right)^3}{\sqrt{5}^{\sqrt{p}}} = \frac{3^{3x}.3^{-3}}{\left(5^{0.5}\right)^{\sqrt{p}}}$
$= \frac{3^{3x}.3^{-3}}{\left(5^{\sqrt{p}}\right)^{0.5}}$
$= \frac{4.3^{-3}}{\sqrt{64}}$
$= \frac{4.\frac{1}{27}}{8} = \frac{1}{54}$

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✓ $3^{3x} = 4$
✓ $\sqrt{5}^{\sqrt{p}} = 8$
✓ 3^{3x-3} or $3^{3x}.3^{-3}$
✓answer
(4)

OR/OF
✓ 3^{3x-3} or $3^{3x}.3^{-3}$
✓ $3^{3x} = 4$
✓ $\sqrt{5}^{\sqrt{p}} = 8$
✓answer
(4)

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<tr><td></td><td></td><td>**[23]**</td></tr>
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QUESTION/*VRAAG* 2

2.1.1	42	✓answer (1)
2.1.2	$2a=6$ $3a+b=1$ $a+b+c=2$ $a=3$ $3(3)+b=1$ $(3)+(-8)+c=2$ $b=-8$ $c=7$ $T_n=3n^2-8n+7$ **OR/OF** $2a=6$ $a=3$ $T_n=3n^2+bn+c$ $T_1:3+b+c=2$ $b+c=-1$ ......(1) $T_2:12+2b+c=3$ $2b+c=-9$ ......(2) T_2-T_1: $b=-8$ Subst. in (1): $-8+c=-1$ $c=7$ $T_n=3n^2-8n+7$	✓ $a=3$ ✓ $b=-8$ ✓ $c=7$ ✓ $T_n=an^2+bn+c$ (4) **OR/OF** ✓ $a=3$ ✓ $b=-8$ ✓ $c=7$ ✓ $T_n=an^2+bn+c$ (4)
2.1.3	$T_{20}=3(20)^2-8(20)+7$ $=1047$	✓substitution ✓answer (2)
2.2	$T_n=-7n+42$ $-7n+42=-140$ $-7n=-182$ $n=26$	✓ $T_n=-7n+42$ ✓ $-7n+42=-140$ ✓ $n=26$ (3)
2.3	$S_n=\frac{n}{2}(a+l)$ **OR/OF** $S_n=\frac{n}{2}[2a+(n-1)d]$ $S_n=\frac{n}{2}(35-7n+42)$ $S_n=\frac{n}{2}(70-7n+7)$ $S_n=\frac{n}{2}(-7n+77)$ $S_n=-\frac{7}{2}n^2+\frac{77}{2}n$ $-\frac{7}{2}n^2+\frac{77}{2}n=3n^2-8n+7$ $13n^2-93n+14=0$ $(n-7)(13n-2)=0$ $n=7$ or $n=\frac{2}{13}$ NA $\therefore n=7$	✓ $S_n=\frac{n}{2}(35-7n+42)$ or $S_n=\frac{n}{2}(70-7n+7)$ ✓simplification of S_n ✓equating ✓standard form ✓factors ✓answer with selection (6)
		[16]

QUESTION/*VRAAG* 3

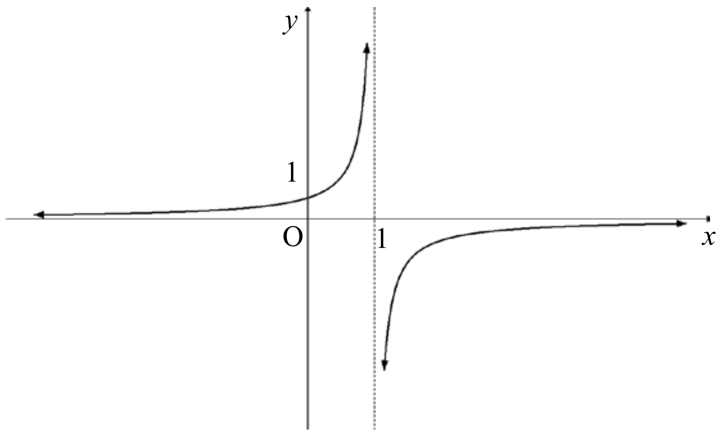
3.1	$r=\frac{1}{2}$ and $S_\infty = 6$ $S_\infty = \frac{a}{1-r}$ $6=\frac{a}{1-\frac{1}{2}}$ $a=3$	✓substitution ✓answer (2)
3.2	$T_n = ar^{n-1}$ $T_8 = 3\left(\frac{1}{2}\right)^7$ $T_8 = \frac{3}{128}$	✓✓ $T_8 = 3\left(\frac{1}{2}\right)^7$ (2)
3.3	$\sum_{k=1}^{n} 3(2)^{1-k} = 5,8125$ $3+\frac{3}{2}+\frac{3}{4}+\ldots = 5,8125$ $S_n = \frac{a(1-r^n)}{1-r} = 5,8125$ $\frac{3\left[1-\left(\frac{1}{2}\right)^n\right]}{1-\frac{1}{2}} = 5,8125$ $6\left[1-\left(\frac{1}{2}\right)^n\right] = 5,8125$ $\left(\frac{1}{2}\right)^n = \frac{1}{32} = 0,03125$ $2^{-n} = 2^{-5}$ or $n\log\frac{1}{2} = \log\frac{1}{32}$ $n=5$ $n=5$	✓ $r=\frac{1}{2}$ ✓substitution ✓simplification ✓answer (4)

3.4	$\sum_{k=1}^{20} 3(2)^{1-k} = p$ $3+\frac{3}{2}+\frac{3}{4}+........+3.2^{-19} = p$ $\sum_{k=1}^{20} 24(2)^{-k}$ $=12+6+3+.....+24.2^{-20}$ $=4\left(3+\frac{3}{2}+\frac{3}{4}+.....+3.2^{-19}\right)$ $=4p$	✓expansion ✓ expansion ✓ answer (3)
	OR/OF $\sum_{k=1}^{20} 3(2)^{1-k} = p$ $\sum_{k=1}^{20} 6(2)^{-k} = p$ $\therefore \sum_{k=1}^{20} 24(2)^{-k} = 4p$	**OR/OF** ✓ $\sum_{k=1}^{20} 6(2)^{-k} = p$ ✓ $\sum_{k=1}^{20} 4\times 6(2)^{-k}$ ✓$4p$ (3)
	OR/OF $\sum_{k=1}^{20} 24(2)^{-k} = \sum_{k=1}^{20} 4\times 3\times 2(2)^{-k}$ $= 4\sum_{k=1}^{20} 3\times 2(2)^{-k}$ $= 4\sum_{k=1}^{20} 3\times (2)^{1-k} = 4p$	**OR/OF** ✓ $\sum_{k=1}^{20} 4\times 3\times 2(2)^{-k}$ ✓ $4\sum_{k=1}^{20} 3\times 2(2)^{-k}$ ✓$4p$ (3)
	OR/OF $S_{20} = \frac{3\left(\left(\frac{1}{2}\right)^{20}-1\right)}{\frac{1}{2}-1} = 6 = p$ $S_{20} = \frac{12\left(\left(\frac{1}{2}\right)^{20}-1\right)}{\frac{1}{2}-1} = 24$ $24 = 4\times 6 = 4p$	**OR/OF** ✓ substitution and answer ✓substitution and answer ✓$4p$ (3)
		[11]

QUESTION/*VRAAG* 4

4.1	Yes For every x-value there is only one corresponding y value **OR/OF** One to one mapping (vertical line test)	✓answer ✓reason (2)
4.2	R(–12 ; –6)	✓answer (1)
4.3	$f(x)=ax^2$ substitute $(-6;-12)$ $-12=a(-6)^2$ $a=\frac{-1}{3}$	✓substitution ✓answer (2)
4.4	$f: y=-\left(\frac{1}{3}\right)x^2$ $f^{-1}: x=-\left(\frac{1}{3}\right)y^2$ $y^2=-3x$ $y=\pm\sqrt{-3x}$ Only $y=-\sqrt{-3x}$ and $x\leq 0$	✓swapping x and y ✓ $y^2=-3x$ ✓ $y=-\sqrt{-3x}$ (3)
		[8]

QUESTION/*VRAAG* 5

5.1	Domain: $x\in R$; $x\neq 1$ **OR/OF** $x\in(-\infty;1)\cup(1;\infty)$	✓answer (1)
5.2	$x=1$ $y=0$	✓$x=1$ ✓$y=0$ (2)
5.3		✓ y intercept ✓vertical asymptote ✓shape (3)
5.4	$x\geq 0$; $x\neq 1$ **OR/OF** $0\leq x<1$ or $x>1$ **OR/OF** $x\in[0;1)\cup(1;\infty)$	✓$x\geq 0$ ✓$x\neq 1$ (2) **OR/OF** ✓ $0\leq x<1$ ✓ $x>1$
		[8]

QUESTION/*VRAAG* 6

6.1	$y = mx + c$ $m = \frac{5-1}{4-0}$ $m = 1$ $c = 1$ $g(x) = x + 1$ **OR/OF** $y = mx + c$ $5 = m(4) + 1$ $m = 1$ $g(x) = x + 1$	✓substitution into gradient formula ✓y-intercept (0 ; 1) (2) **OR/OF** ✓substitute (4 ; 5) ✓$c = 1$ (2)
6.2	$x^2 - 2x - 3 = 0$ $(x+1)(x-3) = 0$ $x = -1$ or $x = 3$ A(–1 ; 0) B(3 ; 0)	✓$y = 0$ ✓factors ✓x-values (3)
6.3	$x = \frac{-1+3}{2}$ or $x = \frac{-b}{2a} = \frac{-(-2)}{2(1)}$ or $f'(x) = 2x - 2 = 0$ $x = 1$ $f(x) = x^2 - 2x - 3$ $y = (1)^2 - 2(1) - 3$ or $y = (x^2 - 2x + (-1)^2) - 3 - 1$ $y = -4$ $= (x-1)^2 - 4$ $y \geq -4$ or $[-4;\infty)$	✓x -value ✓ substitution/ completing the square ✓ answer (3)
6.4.1	**MN:** $y = (x^2 - 2x - 3) - (x+1)$ $= x^2 - 3x - 4$ $6 = x^2 - 3x - 4$ $0 = x^2 - 3x - 10$ $0 = (x-5)(x+2)$ $x = 5$ or $x = -2$ OT = 2 or OT = 5 NA	✓ $x^2 - 3x - 4$ ✓substituting $y = 6$ ✓values of x ✓ OT = 2 (4)
6.4.2	$y = x + 1$ substitute $x = -2$ $= (-2) + 1$ $= -1$ N(–2 ; –1)	✓substituting $x = -2$ ✓answer (2)

6.5	$f'(x)=2x-2$ $2x-2=1$ $x=\frac{3}{2}$ $f\left(\frac{3}{2}\right)=\frac{-15}{4}$ $y+\frac{15}{4}=1\left(x-\frac{3}{2}\right)$ or $-\frac{15}{4}=\frac{1}{2}+c$ $y=x-\frac{21}{4}$ **OR/OF** $x^2-2x-3=x+p$ $x^2-2x-3-x-p=0$ This equation will have equal roots, therefore: $b^2-4ac=0$ $(-3)^2-4(1)(-3-p)=0$ $9+12+4p=0$ $p=\frac{-21}{4}$ $y=x-\frac{21}{4}$	✓ $f'(x)=2x-2$ ✓ $2x-2=1$ ✓ $x=\frac{3}{2}$ ✓ $f\left(\frac{3}{2}\right)=\frac{-15}{4}$ ✓answer (5) **OR/OF** ✓equating ✓equal roots ✓ substitution ✓simplification ✓answer (5)
6.6	$k<\frac{-21}{4}$	✓answer (1)
		[20]

QUESTION/*VRAAG* 7

7.1.1	$F=\frac{x[(1+i)^n-1]}{i}$ $F=\frac{15\ 000\left[\left(1+\frac{0,088}{4}\right)^{16}-1\right]}{\frac{0,088}{4}}$ F = R283 972,28	✓ $\frac{0,088}{4}$ and $n=16$ ✓substitution into correct formula ✓answer (3)
7.1.2	$A=\text{R}283\ 972,28-100\,000\left(1+\frac{0,088}{4}\right)^4$ = R 174 877,60 **OR/OF** Amount at end of 3 years: $F=\frac{15\ 000\left[\left(1+\frac{0,088}{4}\right)^{12}-1\right]}{\frac{0,088}{4}}-100\,000$ = R103 459,12 Amount at end of 4 years: $P(1+i)^n+\frac{x[(1+i)^n-1]}{i}$ $=103\,459,12\left(1+\frac{0,088}{4}\right)^4+\frac{15000\left[\left(1+\frac{0,088}{4}\right)^4-1\right]}{\frac{0,088}{4}}$ = R 174 877,60	✓ future value – amount including interest ✓ $100\,000\left(1+\frac{0,088}{4}\right)^4$ ✓answer (3) **OR/OF** ✓ R15 000 including interest – R100 000 ✓ $\left(1+\frac{0,088}{4}\right)^4$ on P and x in F_v ✓method (3)
7.2.1	$P=\frac{x\left[1-(1+i)^{-n}\right]}{i}$ $1\ 500\ 000=\frac{x\left[1-\left(1+\frac{0,105}{12}\right)^{-12\times20}\right]}{\frac{0,105}{12}}$ x = R14 975,70	✓ $i=\frac{0,105}{12}$ ✓ $n=240$ ✓ substitution into correct formula ✓ answer (4)

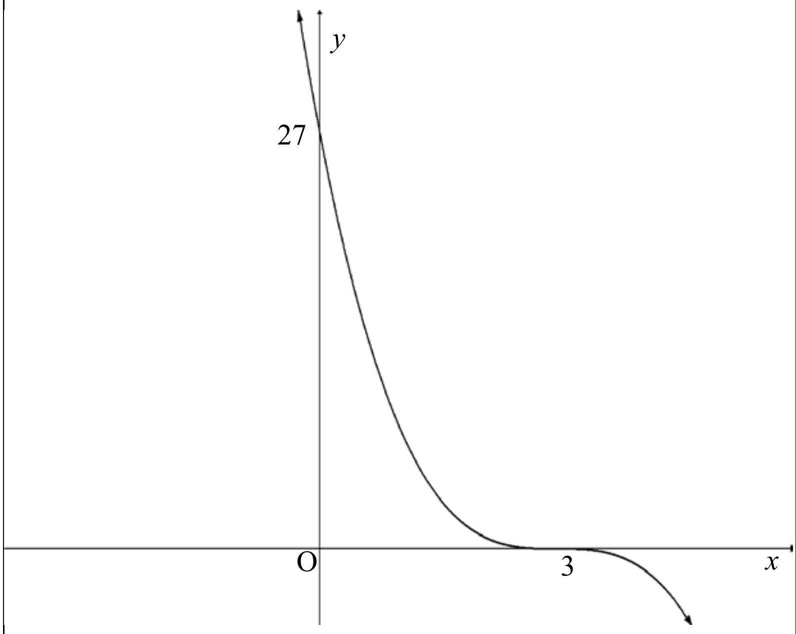
7.2.2	$P=\frac{x\left[1-(1+i)^{-n}\right]}{i}$ $P=\frac{14\ 975{,}70\left[1-\left(1+\frac{0{,}105}{12}\right)^{-12\times 8}\right]}{\frac{0{,}105}{12}}$ $P=\text{R}969\,927{,}74$ **OR/OF** Balance outstanding = A – F $=1\ 500\ 000\left(1+\frac{0{,}105}{12}\right)^{144}-\frac{14\ 975{,}70\left[\left(1+\frac{0{,}105}{12}\right)^{144}-1\right]}{\frac{0{,}105}{12}}$ = R5 259 229,61– R4 289 302,47 = R969 927,14	✓R14 975,70 in P_v-formula ✓✓ $n=96$ ✓ substitution into correct formula ✓ answer (5) **OR/OF** ✓ n = 144 in A-formula ✓ $n=144$ in F_v-formula ✓ R14 975,70 ✓ A – F ✓ answer (5)
		[15]

QUESTION/*VRAAG* 8

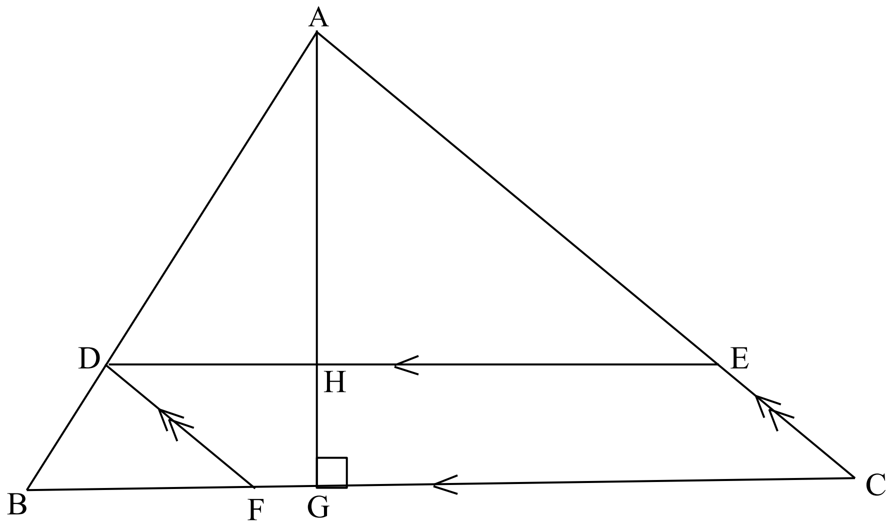
8.1	$f'(x)=\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ $=\lim_{h\to 0}\frac{x^2+2xh+h^2-5-x^2+5}{h}$ $=\lim_{h\to 0}\frac{h(2x+h)}{h}$ $=\lim_{h\to 0}(2x+h)$ $=2x$ **OR/OF** $f(x+h)=(x+h)^2-5$ $=x^2+2xh+h^2-5$ $f(x+h)-f(x)=x^2+2xh+h^2-5-(x^2-5)$ $=2xh+h^2$ $f'(x)=\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ $=\lim_{h\to 0}\frac{2xh+h^2}{h}$ $=\lim_{h\to 0}\frac{h(2x+h)}{h}$ $=\lim_{h\to 0}(2x+h)$ $=2x$	✓ $x^2+2xh+h^2-5$ ✓simplification ✓factorisation ✓ $\lim_{h\to 0}(2x+h)$ ✓ $2x$ (5) **OR/OF** ✓ $x^2+2xh+h^2-5$ ✓simplification ✓factorisation ✓ $\lim_{h\to 0}(2x+h)$ ✓ $2x$ (5)
8.2.1	$y=3x^3+6x^2+x-4$ $\frac{dy}{dx}=9x^2+12x+1$	✓ $9x^2$ ✓ $12x$ ✓ 1 (3)
8.2.2	$y(x-1)=2x(x-1)$ $y=\frac{2x(x-1)}{x-1}$ if $x\neq 1$ $y=2x$ $\frac{dy}{dx}=2$	✓ $y(x-1)$ ✓ $2x(x-1)$ ✓ $y=2x$ ✓answer (4)
		[12]

QUESTION/*VRAAG* 9

9.1.1	$g(x)=(x+5)(x-x_1)^2$ $20=5(x_1)^2$ $x_1^{\ 2}=4$ $x_1=2$ $g(x)=(x+5)(x-2)^2$ $g(x)=(x+5)(x^2-4x+4)$ $g(x)=x^3+x^2-16x+20$	✓ $(x+5)$ ✓repeated root ✓$x_1=2$ ✓ $g(x)=(x+5)(x^2-4x+4)$ (4)
9.1.2	$g(x)=x^3+x^2-16x+20$ $g'(x)=3x^2+2x-16$ $3x^2+2x-16=0$ $(3x+8)(x-2)=0$ $x=\frac{-8}{3}$ or $x=2$ $R\left(\frac{-8}{3};\frac{1372}{27}\right)$ or $R(-2{,}67\,;50{,}81)$ $P(2;0)$	✓derivative ✓equating to zero ✓factors ✓co-ordinates of R ✓ co-ordinates of P (5)
9.1.3	$g''(x)=6x+2$ $g''(0)=2$ $\therefore$ concave up **OR/OF** $g''(x)=6x+2$ $6x+2=0$ $x=-\frac{1}{3}$ is the point of inflection $\therefore$ concave up	✓ $g''(x)=6x+2$ ✓ $g''(0)=2$ ✓conclusion (3) **OR/OF** ✓ $g''(x)=6x+2$ ✓ $x=-\frac{1}{3}$ ✓conclusion (3)

9.2		✓ y – intercept of a cubic graph ✓ point of inflection and stationary point, $x = 3$ ✓ concave up for $x < 3$ and concave down for $x > 3$ (3)
		[15]

QUESTION/*VRAAG* 10

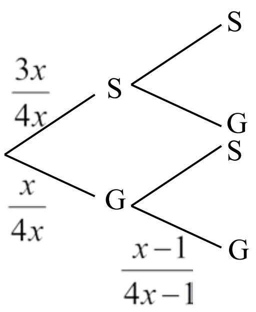


10.1	$\frac{AH}{HG} = \frac{3}{2}$	✓ answer (1)
10.2	Area of a parallelogram $=$ base $\times \perp$ height Area $= \frac{3}{5}(5-t).\frac{2}{5}t$ Area $= \frac{6}{25}(5-t)t$ $A(t) = -\frac{6}{25}t^2 + \frac{6}{5}t$ $A'(t) = -\frac{12}{25}t + \frac{6}{5}$ $-\frac{12}{25}t + \frac{6}{5} = 0$ $12t - 30 = 0$ $t = \frac{30}{12}$ or $\frac{5}{2}$	✓ $\frac{2}{5}t$ ✓ $\frac{3}{5}(5-t)$ ✓ $A(t) = -\frac{6}{25}t^2 + \frac{6}{5}t$ ✓ $-\frac{12}{25}t + \frac{6}{5}$ ✓answer (5)
		[6]

QUESTION/*VRAAG* 11

11.1.1	$7^5 = 16\ 807$	✓✓ answer (2)
11.1.2	$7 \times 6 \times 5 \times 4 \times 3$ $= \frac{7!}{2!} = 2520$	✓$7 \times 6 \times 5 \times 4 \times 3$ or $\frac{7!}{2!}$ ✓answer (2)
11.2	$2 \times 7 \times 1 = 14$	✓✓✓ $2 \times 7 \times 1$ (3)
		[7]

QUESTION/*VRAAG* 12

12.1	P(A or B) = P(A) + P(B) 0,74 = 0,45 + y y = 0,29	✓ P(A or B) = P(A) + P(B) ✓substitution ✓answer (3)
12.2	 Let the number of mystery gift bags = x The total number of bags = $4x$ $\left(\frac{x}{4x}\right) \times \left(\frac{x-1}{4x-1}\right) = \frac{7}{118}$ $\frac{1}{4} \times \frac{x-1}{4x-1} = \frac{7}{118}$ $\frac{x-1}{4x-1} = \frac{28}{118}$ $118x - 118 = 112x - 28$ $x = 15$	✓ $4x$ ✓$\left(\frac{x}{4x}\right)$ or $\left(\frac{1}{4}\right)$ ✓$\left(\frac{x-1}{4x-1}\right)$ ✓$\frac{1}{4} \times \frac{x-1}{4x-1}$ ✓ equating to $\frac{7}{118}$ ✓answer (6)

	OR/OF P(gift and gift) = P(gift at first draw) × P(gift at second draw) $\frac{7}{118}=\frac{1}{4}\times \text{P(gift at second draw)}$ P(gift at second draw) = $\frac{7}{118}\div\frac{1}{4}$ $=\frac{14}{59}$ Therefore: P(gift at first draw) $=\frac{15}{60}$ And: 15 bags had mystery gifts inside	**OR/OF** ✓$\frac{1}{4}$ ✓$\frac{1}{4}\times \text{P(gift at }2^{nd}\text{ draw)}$ ✓ $\frac{7}{118}=\frac{1}{4}\times \text{P(gift at }2^{nd}\text{ draw)}$ ✓$\frac{14}{59}$ ✓ $\frac{15}{60}$ ✓answer (6)
		[9]

TOTAL/*TOTAAL*: 150