



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GAUTENG DEPARTMENT OF EDUCATION
GAUTENGSE DEPARTEMENT VAN ONDERWYS
PROVINCIAL EXAMINATION
PROVINSIALE EKSAMEN

NOVEMBER 2020

GRADE/GRAAD 9

MATHEMATICS/WISKUNDE
(PAPER/VRAESTEL 1)

MEMORANDUM

4 pages/bladsye

SECTION/AFDELING A
QUESTION/VRAAG 1

1.1	C✓A	(1)
1.2	A✓A	(1)
1.3	A✓A	(1)
1.4	C✓A	(1)
1.5	D✓A	(1)
		[5]

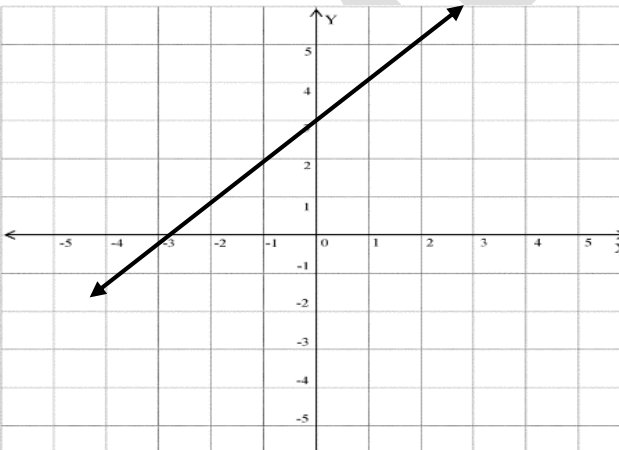
SECTION/AFDELING B
QUESTION/VRAAG 2

2.1	$x^2 + 3x - 5x - 15$ $= x^2 - 2x - 15$ ✓✓✓A	1 mark for each term/ 1 punt vir elke term (3)
2.2	$\frac{a(b+1)}{ab}$ ✓ M $= \frac{b+1}{b}$ or $1 + \frac{1}{b}$ ✓✓A	1 mark for common factor/ 1 punt vir gemeenskaplike faktor 1 mark numerator/ 1 punt vir teller 1 mark denominator/ 1 punt vir noemer OR 1 mark for common factor/ 1 punt vir gemeenskaplike 2actor 1 mark for 1/1 punt vir 1 1 mark $\frac{1}{b}$ /1 punt vir $\frac{1}{b}$ (3)
2.3.1	$2(4k^2 - 1)$ ✓ M $= 2(2k - 1)(2k + 1)$ ✓✓A	1 mark for common factor/ 1 punt vir gemeenskaplike faktor 2 marks for factorization/ 2 punte vir faktorisering (3)
2.3.2	$(x - 3)(x - 4)$ ✓✓A	1 mark for each correct factor/ 1 punt elk vir elke korrekte faktor (2)
2.3.3	$\frac{x(x + 2)}{(x - 2)(x + 2)}$ ✓✓M $\frac{x}{x - 2}$ ✓A	2 marks for common factor/ 2 punte vir gemeenskaplike faktor 2 marks for factorization/ 2 punte vir faktorisering 1 mark for answer/ 1 punt vir antwoord (5)
		[16]

QUESTION/VRAAG 3

3.1.1	$3x - x = -4 + 6$ ✓M $2x = 2$ ✓CA $x = 1$ ✓CA	1 mark for operation/1 punt <i>bewerking</i> 1 mark for dividing by 2/ <i>1 punt vir deling met 2</i> 1 mark for answer/1 punt vir <i>antwoord</i> (3)
3.1.2	$3^a = 3^4$ ✓M $a = 4$ ✓A	1 mark for 3^4 /1 punt vir 3^4 1 mark for answer/1 punt vir <i>antwoord</i> (2)
3.1.3	$x - 1 = 0$ or/of $x + 3 = 0$ $x = 1$ or/of $x = -3$ ✓✓A	1 mark for each answer/ <i>1 punt vir elke antwoord</i> (2)
3.1.4	$(4m + 8)(4m - 8) = 0$ ✓M $4m + 8 = 0$ or/of $4m - 8 = 0$ $4m = -8$ or/of $4m = 8$ $m = -2$ or/of $m = 2$ ✓✓CA	1 mark for factors/1 punt vir <i>faktore</i> 1 mark for each answer/ <i>1 punt vir elke antwoord</i> (3)
3.2	Let the number of balls in the tin be x / <i>Laat die aantal balle in elke houer = x</i> There are 4 tins/Daar is 4 houters $4x + 7 = 27$ ✓✓M $4x = 27 - 7$ ✓CA $4x = 20$ $x = 5$ ✓CA There are 5 balls in each tin./ <i>Daar is 5 balle in elke houer.</i>	1 mark for multiplying x by 4 /1 punt vir vermenigvuldig <i>met $4x$</i> 1 mark for algebraic <i>equation/1 punt vir</i> <i>algebraïese vergelyking</i> 1 mark for additive inverse/ <i>1 punt vir optellingsinverses</i> 1 mark for answer/1 punt vir <i>antwoord</i> OR/OF Full marks for any similar <i>reasoning and correct answer/</i> <i>Volpunte vir enige</i> <i>soortgelyke redenasie en</i> <i>korrekte antwoord</i> (4)
		[14]

QUESTION/VRAAG 4

4.1.1	30 ✓A	1 mark for answer/1 punt vir antwoord (1)																		
4.1.2	February & March/Februarie & Maart ✓A April & May/April & Mei ✓A	1 mark for answer/1 punt vir antwoord (2)																		
4.1.3	30 – 25 ✓M 5 ✓A	1 mark for subtraction/1 punt vir aftrekking 1 mark for answer/1 punt vir antwoord (2)																		
4.1.4	Discrete. Fridges represent quantities which can be counted and they are whole. One cannot sell half a fridge. ✓A Diskreet ✓. Yskaste stel hoeveelhede voor wat getel kan word en hulle is heel. Jy kan nie 'n halwe yskas verkoop nie. ✓	1 mark for discrete/1 punt vir diskreet 1 mark for the explanation/1 punt vir verduideliking (2)																		
4.2.1	<table border="1"> <tbody> <tr> <td>x</td> <td>-2</td> <td>-1</td> <td>0</td> <td>1</td> <td>2</td> </tr> <tr> <td>y</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td></td> <td>✓A</td> <td>✓A</td> <td>✓A</td> <td>✓A</td> <td>✓A</td> </tr> </tbody> </table>	x	-2	-1	0	1	2	y	1	2	3	4	5		✓A	✓A	✓A	✓A	✓A	1 mark for each correct y-value/1 punt vir elke regte y-waarde (5)
x	-2	-1	0	1	2															
y	1	2	3	4	5															
	✓A	✓A	✓A	✓A	✓A															
4.2.2	 <p style="text-align: right;">✓✓✓A</p>	1 mark for correct gradient or shape/1 punt vir gradiënt en vorm 1 mark for correct x-intercept/1 punt vir regte x-snypunt 1 mark for correct y-intercept/1 punt vir regte y-snypunt (3)																		
		[15]																		
TOTAL/TOTAAL: 50																				