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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

MEMORANDUM

MATHEMATICS/WISKUNDE
GRADE/GRAAD 9SECTION/AFDELING A
QUESTION/VRAAG 1

1.1	C✓A
1.2	A✓A
1.3	A✓A
1.4	C✓A
1.5	D✓A

(1)
(1)
(1)
(1)
(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 factor (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]

MEMORANDUM

MATHEMATICS/WISKUNDE
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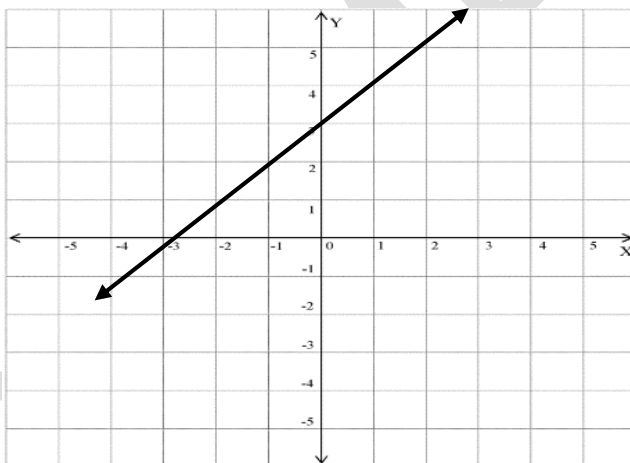
QUESTION/VRAAG 3

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

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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><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></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	 ✓✓✓A	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																		