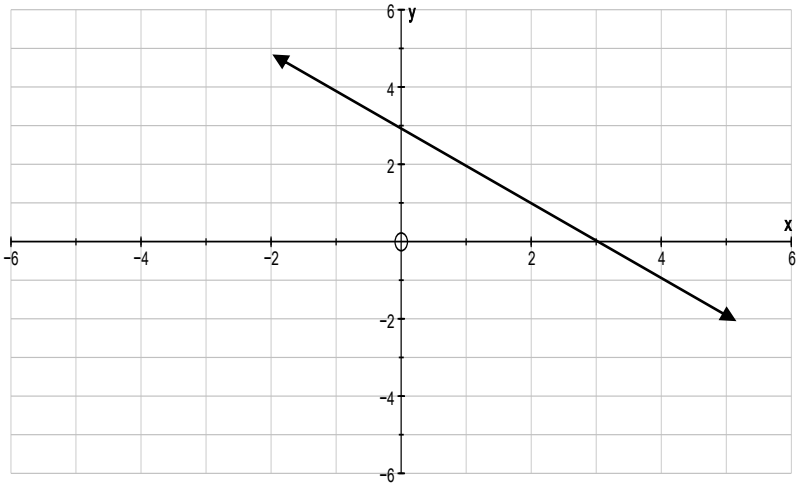
GRADE 8 MATHEMATICS NOVEMBER EXAM

PAPER 1 – MEMO **TOTAL : 75**

QUESTION 1			
1.1.1	B	1.6 A	
1.1.2	B	1.7 C	
1.2	A	1.8 A	
1.3	A	1.9 C	
1.4	B	1.10 D	
1.5	A	1.11 C	**[12]**
QUESTION 2			
2.1	$-5;\ -1\frac{1}{2};\ -\frac{1}{8}$	• -5 smallest • Rest	(2)
2.2.1	$308 = 2\times2\times7\times11$ $56 = 2\times2\times2\times7$	• Method (irrespective of error) • Primes of 308 • Primes of 56	(3)
2.2.2	$HCF = 2^2\times7 = 28$	• 4 • 7 OR answer only 28	(2)
2.3.1	Cheslin $\frac{80m}{7,5s} = 10,67m/s$ Wayde $\frac{400m}{43,03s} = 9,3m/s$	• Ratio • Answer 10.67 • Ratio • Answer 9.3	(4)
2.3.2	Cheslin	• Cheslin	(1)
2.4	$715 = 5\times13\times11$ $5+13+11 = 29$	• 5; 13; 11 • Answer = 29 OR answer only	(2)
2.5.1	$7-3\left[-2\times9+(4\div2\times3)\right]$ $=7-3\left[-18+6\right]$ $=7-3[-12]$ $=7+36$ $=43$	• Exponents and cube root • Brackets ie. -12 • 43 (CA) IF DID NOT FOLLOW BEDMAS THEN BD!	(3)
2.5.2	$\frac{-10}{3}\div\frac{13}{6} = \frac{-10}{3}\times\frac{6}{13} = \frac{-20}{13}$	• Improper • Tip & times • Answer	(3)
2.6	Row=1; $A=-4$	• A = -4	(1)
			[21]

QUESTION 3			
3.1.1	x^6	• answer	(1)
3.1.2	$9x^2y^6$	• 9 • Exponents	(2)
3.1.3	$\frac{-y^2}{6}$	• Negative • 6 in denominator • Y squared numerator	(3)
3.1.4	$-x^3$	• Negative • Exponent	(2)
3.2	$(x+3)+x=3x$	• x+3 • 3x • Equation	(3)
3.3.1	$x+6x^2$	• x • $6x^2$	(2)
3.3.2	$9x+6-5x=4x+6$	• $9x+6$ distributive law • $4x+6$ simplify (CA)	(2)
3.3.3	$2x+6+8x-4=10x+2$	• $2x+6$ distributive law • $8x-4$ distributive law • $10x$ (CA) • 2 (CA)	(4)
3.3.4	$4x^2-3x^2=x^2$	• $4x^2$ squaring • x^2 adding like terms	(2)
			[21]
QUESTION 4			
4.1.1	$3x-27=-2$ $3x=25$ $x=\frac{25}{3}$	• $3x=25$ • $x=\frac{25}{3}$ (CA)	(2)
4.1.2	$2(x-1)-12=-2(3+x)$ $2x-2-12=-6-2x$ $2x+2x=-6+2+12$ $4x=8$ $x=2$	• $2x-2$ • $-6-2x$ • $4x=8$ (CA) • $x=2$	(4)
4.1.3	$\frac{15+3x}{3}=-5$ $15+3x=-15$ $3x=-30$ $x=-10$ OR $5+x=-5$ $x=-10$	• $15+3x=-15$ • $3x=-30$ • $x=-10$ (CA) OR • 5; then x; then answer	(3)

<table>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>4.1.4</td><td>$5^x = 5(25)$
$5^x = 5^3$ OR $5^x = 125$
$x = 3$ $x = 3$</td><td>• X = 3</td><td>(1)</td></tr>
<tr><td>4.2</td><td>$12x - 9 = 3(4x - 3)$
$a = 3 \quad b = -3$
$a - b = 3 - (-3) = 6$</td><td>• 6 answer ONLY</td><td>(2)</td></tr>
<tr><td></td><td></td><td></td><td>[12]</td></tr>
<tr><td>QUESTION 5</td><td></td><td></td><td></td></tr>
<tr><td>5.1.1</td><td>7</td><td>• 7</td><td>(1)</td></tr>
<tr><td>5.1.2</td><td>$1;3;5;7;.....$
$T_n = 2n - 1$</td><td>• Sequence
• 2n
• $T_n = 2n - 1$</td><td>(3)</td></tr>
<tr><td>5.1.3</td><td>$T_{21} = 2(21) - 1 = 41$</td><td>• Subs 21
• Answer</td><td>(2)</td></tr>
<tr><td>5.2</td><td>
<table>
<tr><td>x</td><td>-2</td><td>0</td><td>2</td><td>4</td></tr>
<tr><td>y</td><td>5</td><td>3</td><td>1</td><td>-1</td></tr>
</table>
• Table values
• Points on graph
• joined
$y = -x + 3$


</td><td>(3)</td></tr>
<tr><td></td><td></td><td></td><td>[9]</td></tr>
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