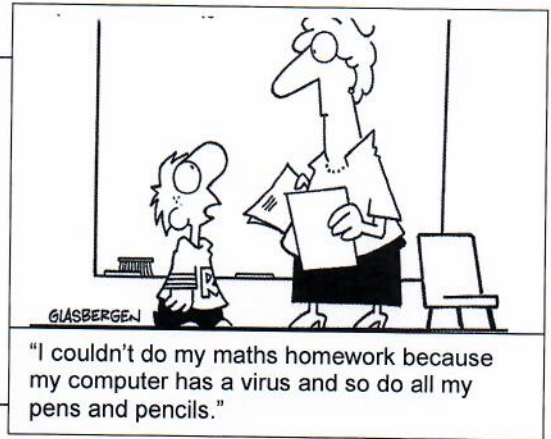


Instructions:

- No calculators may be used.
- All work must be completed in pencil. No tippex allowed.
- Marks have been allocated for working out.
- Rule off after each section.
- Read the instructions carefully.
- Check your work before handing in.
- Work neatly and manage your time carefully.



QUESTION 1: MULTIPLE CHOICE

Write down the correct answer, from within the table, on your answer page.

10

a. $3 + 5 + 4 \times 3 + 10 \div 2 =$	25	23	41	19
b. $(3 \times 10^1) + (4 \times 10^0) + (8 \times 10^3) =$	843	8 030	8 070	8 034
c. The next term in the following sequence is: 7 ; 8 ; 15; 23 ; _____	38	32	33	39
d. 10% of R500 is equal to	R20	R50	R100	R200
e. $\sqrt[3]{729} =$	9	3	5	10
f. The first five prime numbers are:	1 ; 2 ; 3 ; 4 ; 5	1 ; 2 ; 3 ; 5 ; 7	1 ; 3 ; 5 ; 7 ; 9	2 ; 3 ; 5 ; 7 ; 11
g. The LCM of 8 and 12 is:	96	48	2	24
h. Two thirds of an hour is equal to	20 minutes	30 minutes	40 minutes	45 minutes
i. How many playing cards are there in a pack if you exclude the jokers?	52	50	13	54
j. $(-3)^2 =$	-9	9	6	-6

QUESTION 2: TRUE OR FALSE		5
Write down whether the following statements are <u>true</u> or <u>false</u> .		
a	45 673,83 rounded off to the nearest ten is 45 673,8	
b	$3(a + b) = (3 + a) + (3 + b)$	
c	784 832 is equally divisible by 4	
d	$\frac{23}{50}$ for a test would be equal to 46%	
e	$0,0098 \times 10 = 0,098$	

QUESTION 3: WHOLE NUMBERS		15
a	Calculate the HCF of 18; 48 and 60	3
b	Round off 5 789 405 to the nearest ten thousand.	1
c	Round off 6 799,087 to the nearest tenth	1
d	Write down the multiples of 6 between 30 and 60	2
e	Rewrite the following equation by filling in the missing numbers: $597 + 185 = (597 + \underline{\quad}) + (185 - 3)$ $= 600 + \underline{\quad}$ $= \underline{\quad}$	3
f	Write as a number: Two million, three hundred and seventeen thousand and forty	2
g	Use the <u>ladder method</u> to determine the prime factors of 180 . Write the prime factors in exponential form to represent the number.	3

QUESTION 4: FRACTIONS		15			
a	$\frac{5}{6}$ of 2 hours	2	b	$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$	1
c	$1\frac{2}{3} \times \frac{3}{4} \times 2\frac{4}{7}$	3	d	$2\frac{1}{5} + 2\frac{3}{4} - 2\frac{1}{2}$	3
e	$14 \div 100$	1	f	$23,6 + 0,007 + 43$	2
g	$0,2 \times 2 \times 0,02$	1	h	$0,5 \div 20$	2

QUESTION 5: EXPONENTS		10
a	$\sqrt{5^2 + 24}$	2
b	$(\sqrt[3]{125} - \sqrt{25}) + (4^1 + 1^4)$	3
c	$\sqrt{10^2} + (3 + 1)^2$	3
d	$\frac{\sqrt[2]{81}}{3^2}$	2

QUESTION 6: FUNCTIONS AND RELATIONSHIPS		10											
a	Use the rule $y = 2x + 6$ to calculate the values of a and b	2											
b	<table border="1"> <tr> <td>x</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>y</td> <td>10</td> <td>a</td> <td>b</td> </tr> </table>		x	2	3	4	y	10	a	b			
x	2	3	4										
y	10	a	b										
c		2											
d													
e	<p>Tabulate the first five patterns of dots:</p> <p>1 2 3 4 5</p>	3											
f	Write down the relationship between x and y. (Rule)	1											
	<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>y</td> <td>4</td> <td>13</td> <td>22</td> <td>31</td> <td>40</td> </tr> </table>		x	1	2	3	4	5	y	4	13	22	31
x	1	2	3	4	5								
y	4	13	22	31	40								
g	Calculate the values for the letters g and h in the table.	2											
h			<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>h</td> </tr> <tr> <td>y</td> <td>-3</td> <td>-6</td> <td>-9</td> <td>g</td> <td>-36</td> </tr> </table>	x	1	2	3	4	h	y	-3	-6	-9
x	1	2	3	4	h								
y	-3	-6	-9	g	-36								

QUESTION 7: ALGEBRAIC EXPRESSIONS AND EQUATIONS:					15
Calculate the value of x for the following equations:					
a	$\frac{x}{5} = 5$	1	b	$7x = 21$	1
c	$6x + 6 = 18$	2	d	$20 + 2x = 7x - 10$	3
e	$3(x+2) = 4x - 5$	3	f	$\frac{32}{2x} = 8$	3
g	$\frac{16}{x} = 2$	1	h	$2x + 4x = 30$	1

QUESTION 8: NUMBER SENTENCES					5
a	Write down an algebraic expression for the following: The quotient of three times a number and 20	2	b	Write down an algebraic equation for the following: Ten subtracted from the product of a certain number and 3, will equal to the square root of the same certain number.	3

QUESTION 9: PERCENTAGES					5
a	Write 8% as a fraction	2	b	$R300 \times 5\% =$	2
c	Write 0,6 as a percentage	1			

QUESTION 10 : INTEGERS					10
a	$3 + (-7) - 6 - (-2)$	1	b	$\square + 3 = -20$	1
c	$\frac{-5(4)}{2(-2)}$	3	d	$(-2)(-4) + (-4 \div 2)$	3
e	$20 - \square = -10$	1	f	$\sqrt[3]{-8}$	1

