

CHIJ SECONDARY (TOA PAYOH) MID YEAR EXAMINATION 2008 SECONDARY 1 (EXPRESS)

MATHEMATICS

Paper 1

5 May 2008

Candidates answer on the Question Paper.

1 hour

READ THESE INSTRUCTIONS FIRST

Write your class, register number and name on all the work you hand in.

Write in dark blue or black pen in the spaces provided on the Question Paper.

You may use a soft pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer all questions.

The number of marks is given in brackets [] at the end of each question or part question. Show all your working in the space below the question.

Omission of essential working will result in loss of marks.

The total marks for this paper is 50.

You are expected to use an electronic calculator to evaluate numerical expressions. If the degree of accuracy is not specified in the question, and if the answer is not exact, give the answer to **three** significant figures. Give answers in degrees to **one** decimal place.

	FOR EXAMINER'S
	USE
PAPER 1	
TOTAL	50

This document consists of 8 printed pages including the cover page.

Turn over

PAPER 1 [50 marks]

Answer ALL the questions. All working must be clearly shown in the space provided.

1.	Complete the statements in the answer spaces.	
	(a) 0.04375 correct to 2 significant figures is	[1]
	(b) 0.04375 as a fraction in its lowest terms is	[1]
	(c) 0.04375 correct to the nearest thousandth is	[1]
	(d) 2165.89 m rounded off to the nearest 10 m is	[1]
2.	(a) Arrange -1, 5, -13, 29, 0 in ascending order.	
	(a)	[1]
	(b) Find the decimal number exactly halfway between 1.01 and 1.02.	
	(b)	_ [1]
	(c) Find the fraction exactly halfway between $\frac{3}{7}$ and $\frac{6}{7}$	
. * . ·	(c)	[1]

3. Without using a calculator and showing your working clearly, evaluate $-24 \div -10 + [-36 - 100 \div (-5)] \div 8$

4. (a)	Express 2025 as a product of its prime	factors.	*
	·		
a			
v			
		(a <u>)</u>	[2]
(b)	Hence evaluate $\sqrt{2025}$.	<u> </u>	
			_
		•	
s	-	-	
		(b)	[1]
(b) Fi-	nd the LCM of 23 22 5 7 22 23	(a)	[2]
(U) FII yo	and the LCM of $2^3 \times 3^2 \times 5 \times 7$, $2^2 \times 3^3 \times 10^3$ our answer in index notation.	$5^{\circ} \times 11$ and $2^{\circ} \times 3 \times 5 \times 11$, lea	ving Military and a
3.87 P. Line S. 4.76 [[[\$44]]] C			e New Land Color (1968)
		(h)	

(a)	$\frac{2198}{10.9 \times 8.059}$				
			Ø		
			(a)	[1]	
(b)	$\frac{0.812^2 + 0.159}{\sqrt{28.32}}$				
	-				
	, m	ð		•	
	-				
			ŭ		
			<i>a</i> >		
			(b)	[1]	
The	temperature at sea level	is 12°C			
The	temperature at a height	of 6000 m above	sea is -8°C.		
(a) C	Calculate the difference	between these ten	iperatures.		
	anders of the second				
n en Jama - es	and the state of t	en i dega ta i de de Avista de la composição de la composição A la composição de la comp			
			(a)	[1]	
(b) I	f the temperature falls a	t a steady rate of	1°C for every 300m increa	se in height above	
4.4	ea-level, calculate the h	neight above sea le	vel at which the temperatu	re is 5°C.	
S	,				

8.	(a) Write down the next three terms of the following number sequence.	•
	7, 4, 1, -2, -5,	[1]
•	(b) For the following sequences, show the rule and write down the next three to	erms.
	(i) 2, 4, 3, 6, 5, 10,,	[2]
	(ii) 1, 3, 7, 15, 31,	[2]
9.	(a) Factorise the following expressions	
-	(i) $3c + 3ac - 18bc$	
		[1]
	(ii) $4x^2y^2 - 6xy^2 + x^2y^3$	
	en de la companya de La companya de la co	
	(ii) (b) Using algebraic rules (without the use of a calculator), find the value of	
-	$59^2 - 59 \times 6^2 + 77 \times 59$	

(a)	$\frac{4}{3a^3b^2} \div \frac{2}{ab^3}$	· · ·	
(b)	12ab - 6bc + 5ba - 3ca + 7cb	(a)	[2
- (c)	$\frac{3}{2}(4e+12)+4\left(5e-\frac{7}{2}\right)$	(b),	[1
No. of			
		(c)	[2
	20xy - 16y(y - 2x)		
otanija Mangelen (20)		en de la composition della com	• 31 % * ;
tina di Kabupatèn K Kabupatèn Kabupatèn			[2

- 11. Express the following as a single fraction in its simplest form.
 - (a) $\frac{x}{3} + \frac{2x}{5} \frac{5x}{6}$



$$\frac{(\bar{b})}{3} - \frac{y-2}{3} - \frac{2y-3}{6}$$

(b)	r	2
$\{U\}$.	L

(c)
$$5e - \frac{3e-4}{2} + \frac{e-7}{3}$$

12.	(a)	The sum of three numbers is 38. The second number is 4 times the first number. If the first number is x , write down and simplify an expression, in terms of x , for the third number.	
		and the war was a second of the second of th	
		(a)	[2]
	(b)	A man set off on a 10 km journey by running the first x km and then walking the rest of the way at 5km/h. Write down in terms of x , an expression for the time he spent walking.	b
			_
		-	
	-		
	1,1		
		(b)	[1]
			, L^J
	(c)	Two consecutive numbers are such that the larger number added to twice the	
		smaller number gives a total of 88. Find the larger number.	
		smaller number gives a total of 88. Find the larger number.	
ing sa Angar Angaran sa Angar			100
	ia Tabli		
	erin Salata	alita kan di dari keji jedin kaselika kan di keselikah di gasa di kapililika sebas libih. Manangan di dari keji jedin kaselika kan di keselikah di gasa di kapililika sebas libih.	
•		가 있다. 그는 사람들은 사람들은 사람들이 가지 않아야 되는 것이 되었다. 이 전혀 없는 것이 되는 것이 되었다. 사람들이 되었다. 기술을 하는 것을 받는 사람들이 하면 보고 있어요? 그는 사람들이 되었다. 그는 사람들이 가는 것이 없는 것이 되었다. 그는 것이 되었다. 사람들이 모든 것이 되었다. 사람들이 모든 것이 없는 것이 되었다. 사람들이 되었다. 그는 사람들이 있는 것이 되었다. 그는 것이 되었다. 그는 사람들이 있는 것이 되었다. 그는 사람들이 되었다. 그는 것이 없는 것이 되었다.	
		(c)	

Answer Keys for Sec 1E Mid Year 2008 Paper One

	Answer Keys for Sec 1E Mild Year 2008 Paper One				
Qn	Answer	Qn	Answer		
1	(a) 0.044	2 .	(a) -13, -1, 0, 5, 29		
ľ	(b) $\frac{7}{}$		(b) 1.015		
	160		(c) <u>9</u>		
1	(c) 0.044		$\frac{1}{14}$		
}	(d) 2170m				
3	2	4	(a) $3^4 \times 5^2$		
			(b) 45		
5	(a) 18	6	(a) 30		
Ì	(b) $2^3 \times 3^3 \times 5^2 \times 7 \times 11$	_	(b) 0.2		
7	(a) 20°C	8	(a) -8, -11, -14		
	(b) 2100m	ľ	(b) (i) 9, 18, 17		
	(-,		(ii) 63, 127, 255		
9	(2)(i) 2 (1 (1)	10			
1	(a)(i) $3c(1+a-6b)$	10	(a) $\frac{2b}{3a^2}$		
ļ	(ii) $xy^2(4x-6+xy)$				
	(b) 5900		(b) $17ab + bc - 3ca$		
	- ·		(c) $2(13e+2)$		
			(d) $4y(13x-4y)$		
			·		
ļ- , , -			(e) $13 - p$		
11	$(a) = \frac{x}{a}$	12	(a) $38-5x$		
	(a) $-\frac{x}{10}$		(b) $\frac{10-x}{x}$		
1	(b) $-\frac{1}{2}$		5		
	6		(c) 30		
	(c) $\frac{23e-2}{}$				
	(c)				