

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

TRINIDAD AND TOBAGO

SECONDARY ENTRANCE ASSESSMENT

MATHEMATICS

*75 minutes*PRIMARY
SCHOOL: _____

CENTRE NUMBER: _____

CANDIDATE NUMBER: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This test is divided into THREE sections.
2. Make sure that you understand the directions before you start to work on any section.
3. Write ALL your answers in this test booklet. Show ALL your working in the Working Column.
4. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Directions for the Mathematics Test

You are NOT allowed to use **calculators**.

This test has **THREE** sections with a total of 46 test items.

SECTION I has 20 items (Nos. 1 to 20).

SECTION II has 20 items (Nos. 21 to 40).

SECTION III has 6 items (Nos. 41 to 46).

You have 75 minutes for this test.

Answer **ALL** questions.

Read **EACH** question **CAREFULLY** before answering it.

Show **ALL** working in the column provided.

Marks will be given for correct steps taken.

Work carefully but do **NOT** spend too much time on any one question.

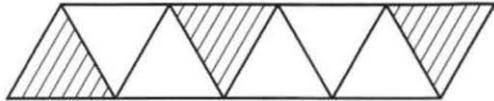
DO NOT WRITE ON THIS PAGE.

Strand	No.	Question	Total	Initial
Number	1	1-8		
	2	21-28		
	3	41-42		
Measurement & Money	4	9-15		
	5	29-35		
	6	43-44		
Geometry	7	16-18		
	8	36-39		
	9	45		
Statistics	10	19-20		
	11	40		
	12	46		
TOTALS				

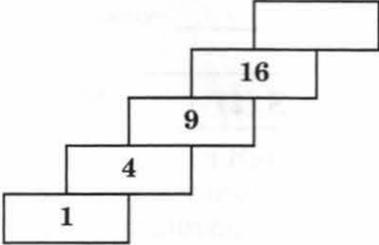
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SECTION I

Each question is worth 1 mark. Answer ALL questions.
Show ALL working in the Working Column.

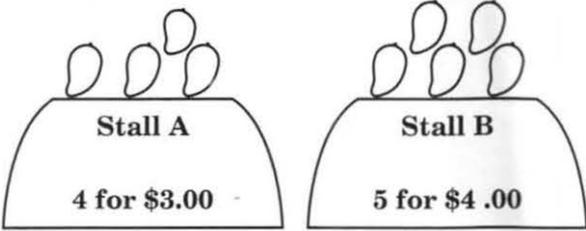
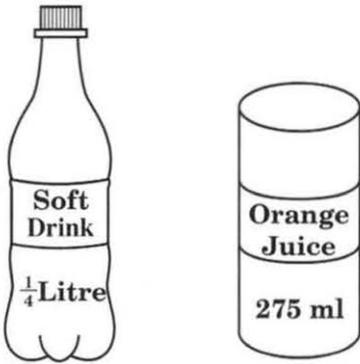
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
1.	<p>ADD:</p> $\begin{array}{r} 847 \\ + 502 \\ \hline \end{array}$ <p>Answer _____</p>		1.		
2.	<p>DIVIDE:</p> <p>Answer _____</p> $4 \overline{) 816}$		2.		
3.	<p>Write the numeral which represents</p> $(2 \times 10\,000) + (6 \times 1000) + (3 \times 10) + (7 \times 1).$ <p>Answer _____</p>		3.		
4.	<p>What FRACTION of the whole shape is shaded?</p>  <p>Answer _____</p>		4.		

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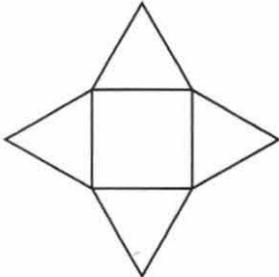
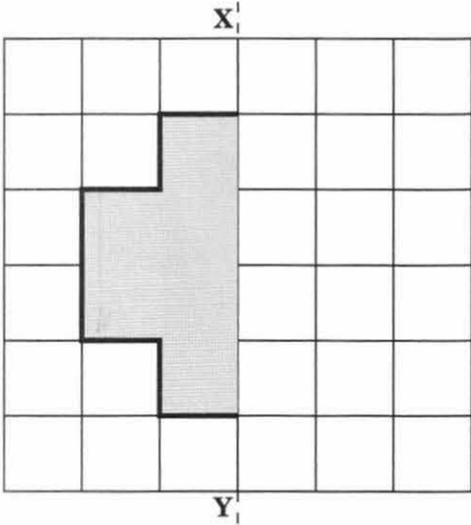
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
5.	Express $5\frac{3}{4}$ as an IMPROPER fraction. Answer _____		5.		
6.	Kerry has 120 oranges. He sells $\frac{5}{8}$ of them. How many oranges does Kerry sell? Answer _____ oranges		6.		
7.	Complete the number pattern below.  Answer _____		7.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
8.	<p>Write the correct number in the circle to give the result shown.</p>		8.		
DO NOT WRITE HERE			KC (2)	AT (4)	PS (2)
9.	<p>Nikki has a total of \$7.00 in her piggy bank. If she only saves 25¢ coins, how many 25¢ coins does she have?</p> <p>Answer _____ coins</p>		9.		
			TOTAL (8)		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
10.	<p>The shape below has sides that are all equal.</p>  <p>What is the perimeter of this shape?</p> <p>Answer _____ cm</p>		10.		
11.	<p>The area of a square is 121 cm^2. Calculate the length of ONE of its sides.</p> <p>Answer _____ cm</p>		11.		
12.	<p>Karen's journey from Rio Claro to Port-of-Spain took 205 minutes. How many HOURS did her journey take?</p> <p>Answer _____ hours</p>		12.		
13.	<p>Lisle has \$6.00. Pencils are sold at \$1.25 each. What is the GREATEST number of pencils that Lisle can buy?</p> <p>Answer _____ pencils</p>		13.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
14.	<p>Ron purchased 4 mangoes from Stall A and Mac purchased 5 mangoes from Stall B.</p>  <p>Who bought the mangoes at a cheaper rate?</p> <p>Answer _____</p>		14.			
15.	<p>Two containers are shown below. Which container holds more?</p>  <p>Answer _____</p>		15.			
DO NOT WRITE HERE			KC (2)	AT (4)	PS (1)	TOTAL (7)

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
16.	<p>What is the name of the solid that will be formed when the net below is folded?</p>  <p>Answer _____</p>		16.		
17.	<p>Complete the shape below so that XY is a line of symmetry.</p>  <p>X₁</p> <p>Y₁</p>		17.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
18.	<p>The diagram below shows an angle labelled x°. PQ is a straight line.</p> <p>Calculate the value of x.</p> <p>Answer $x =$ _____ $^\circ$</p>				18.	
DO NOT WRITE HERE			KC (1)	AT (1)	PS (1)	TOTAL (3)
19.	<p>The pictograph below is to be completed to show the favourite brand of cellphones for 30 students in a class.</p> <p>If represents 2 students, complete the pictograph to show how many students prefer Nokia.</p> <p>MOTOROLA </p> <p>NOKIA _____</p> <p>SONY </p>				19.	

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
20.	<p>The mean of 20 and 10 is the same as the mean of 16 and <input type="text"/>.</p> <p>What number does <input type="text"/> represent?</p> <p>Answer _____</p>		20.		
DO NOT WRITE HERE		KC (0)	AT (1)	PS (1)	TOTAL (2)

SECTION II

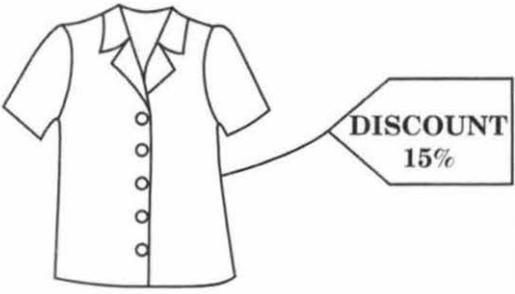
Each question is worth either 2 or 3 marks. Answer ALL questions.
Show ALL working in the Working Column.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
21.	<p>How many pieces of string of length 0.3 m can be cut from a piece 10.5 m long?</p> <p>Answer _____ pieces (2 marks)</p>		21.		
22.	<p>Three-quarters of a number is 60. What is $\frac{1}{5}$ of the SAME number?</p> <p>Answer _____ (2 marks)</p>		22.		
23.	<p>Which of the following fractions is the LARGEST?</p> <p>$\frac{5}{8}$, $\frac{2}{3}$, $\frac{7}{12}$</p> <p>Answer _____ (2 marks)</p>		23.		
24.	<p>What are the next TWO numbers in the sequence 16, 19, 23, 28, ____, ____?</p> <p>Answer _____ and _____ (2 marks)</p>		24.		

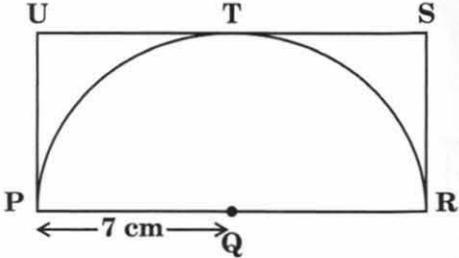
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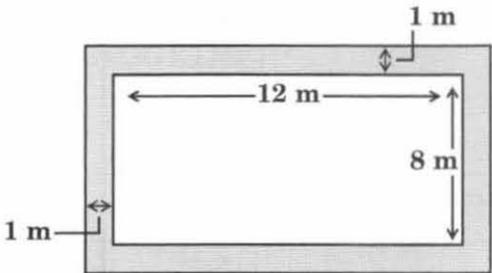
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
25.	<p>Tia is required to multiply 579 by 31. Instead she multiplies 579 by 21 correctly.</p> <p>(a) What is Tia's answer?</p> <p>Answer _____ (1 mark)</p> <p>(b) Complete the statement below.</p> <p>The difference between the required answer and Tia's answer is equal to</p> <p>$579 \times \square$. (1 mark)</p> <p>(c) What is the CORRECT answer that was required of Tia?</p> <p>Answer _____ (1 mark)</p>		25.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
26.	<p>Lisa buys some sweets for a party. She fills 20 bags with 14 sweets each. She has 10 sweets left over.</p> <p>(a) How many sweets did Lisa buy?</p> <p>Answer _____ sweets (2 marks)</p> <p>(b) How many bags could she fill if she puts 12 sweets in EACH bag?</p> <p>Answer _____ bags (1 mark)</p>		26.		
27.	<p>Calculate:</p> $3\frac{2}{3} \div \frac{5}{6}$ <p>Answer _____ (3 marks)</p>		27.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here										
			KC	AT	PS								
28.	<p>A team earns 2 points for a win, 1 point for a draw and no points for a loss.</p> <p>The table below shows the points earned by the team.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Results</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>Won</td> <td>16</td> </tr> <tr> <td>Draw</td> <td>10</td> </tr> <tr> <td>Loss</td> <td>0</td> </tr> </tbody> </table> <p>The team played 25 games. How many games did the team lose?</p> <p>Answer _____ games (3 marks)</p>	Results	Points	Won	16	Draw	10	Loss	0		28.		
Results	Points												
Won	16												
Draw	10												
Loss	0												
DO NOT WRITE HERE			KC (5)	AT (10)	PS (5)	TOTAL (20)							
29.	<p>Gina buys the blouse below which is priced at \$180.00.</p>  <p>After discount, how much money does she pay for the blouse?</p> <p>Answer \$ _____ (2 marks)</p>		29.										

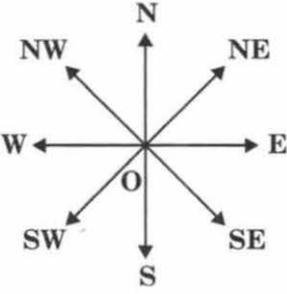
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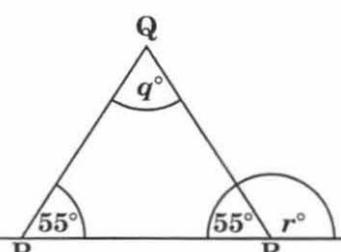
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
30.	<p>An examination began at 8:30 a.m. and was done in two parts. The first part lasted for 1 hour 50 minutes. The second part lasted for 1 hour 15 minutes. At what time did the examination finish if there was a 20-minute break after the first part?</p> <p>Answer _____ (2 marks)</p>		30.		
31.	<p>The semicircle PQRT with radius 7 cm fits inside the rectangle PRSU as shown in the diagram below.</p>  <p>Calculate the perimeter of the rectangle PRSU.</p> <p>Answer _____ cm (2 marks)</p>		31.		

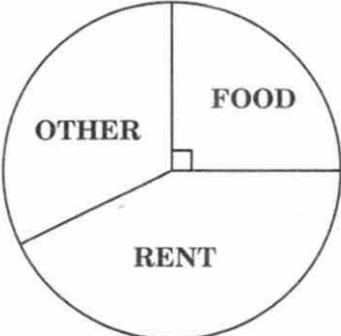
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
32.	<p>(a) Ram's garden plot is 12 m long and 8 m wide. What is the area of the garden?</p> <p>Answer _____ m² (1 mark)</p> <p>(b) Ram makes a path 1 m wide around the garden as shown below.</p>  <p>Calculate the area of the path (shaded).</p> <p>Answer _____ m² (2 marks)</p>				
					32.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
33.	<p>Jane has an EQUAL number of \$20, \$10, \$5 and \$1 bills.</p> <p>(a) What is the LEAST amount of money that Jane could have?</p> <p>Answer _____ (1 mark)</p> <p>(b) If Jane has \$144.00, how many of EACH type of bill does she have?</p> <p>Answer _____ (2 marks)</p>		33.		
34.	<p>Ali borrowed \$5000.00 from the bank for a period of 3 years at a rate of 8% per annum.</p> <p>(a) Calculate the simple interest that Ali must repay.</p> <p>Answer \$ _____ (2 mark)</p> <p>(b) How much money must Ali repay the bank at the end of 3 years?</p> <p>Answer \$ _____ (1 mark)</p>		34.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
35.	<p>Karie's father promised to give her \$4.00 for every \$10.00 she saved. Karie saved \$60.00.</p> <p>(a) How much money does her father have to give her?</p> <p>Answer \$ _____ (2 marks)</p> <p>(b) How much money would she have ALTOGETHER?</p> <p>Answer \$ _____ (1 mark)</p>		35.		
DO NOT WRITE HERE			KC (4)	AT (10)	PS (4)
			TOTAL (18)		
36.	<p>Sheldon has the following plane shapes.</p>  <p>Draw a diagram to show how Sheldon can fit the three shapes together to form a new rectangle.</p> <p>(2 marks)</p>		36.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here										
			KC	AT	PS								
37.	<p>Sasha is facing SE. She turns in a clockwise direction to face NW.</p> <div style="text-align: center;">  </div> <p>(a) What fraction of a whole turn does Sasha make?</p> <p>Answer _____ (1 mark)</p> <p>(b) How many MORE degrees must she turn in order to face North?</p> <p>Answer _____° (1 mark)</p>		37.										
38.	<p>Complete the table below.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Diagram of Solid</th> <th>Name of Solid</th> <th>Number of Faces</th> <th>Number of Corners</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">  </td> <td style="text-align: center;">(a)</td> <td style="text-align: center;">(b)</td> <td style="text-align: center;">(c)</td> </tr> </tbody> </table> <p style="text-align: center;">(1 mark) (1 mark) (1 mark)</p>	Diagram of Solid	Name of Solid	Number of Faces	Number of Corners		(a)	(b)	(c)		38.		
Diagram of Solid	Name of Solid	Number of Faces	Number of Corners										
	(a)	(b)	(c)										

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
39.	<p>Study the diagram below and answer the questions that follow.</p>  <p>(a) Calculate the value of q and r.</p> <p>Answer $q =$ _____ $r =$ _____ (2 marks)</p> <p>(b) Circle the term which BEST describes the triangle PQR.</p> <p>Equilateral Right-angled Isosceles Scalene</p> <p>(1 mark)</p>					
DO NOT WRITE HERE			KC (2)	AT (5)	PS (3)	TOTAL (10)

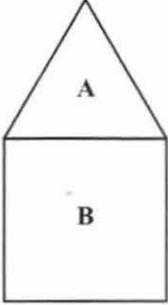
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
40.	<p>The pie chart below shows how Mr Samuel spends his salary for the month.</p>  <p>Calculate his monthly salary if he spends \$1800.00 on food.</p> <p>Answer \$ _____ (2 marks)</p>					
DO NOT WRITE HERE			KC (1)	AT (1)	PS (0)	TOTAL (2)

SECTION III

Each question is worth 5 marks. Answer ALL questions.
Show ALL working in the Working Column.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here																	
			KC	AT	PS															
41.	<p>Richie's marks for the three subjects in an examination are shown on his report below.</p> <p style="text-align: center;">Richie's Report</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Subject</th> <th>Maximum Marks</th> <th>Marks Obtained</th> </tr> </thead> <tbody> <tr> <td>Essay</td> <td>100</td> <td>70</td> </tr> <tr> <td>Mathematics</td> <td>100</td> <td>80</td> </tr> <tr> <td>Language Arts</td> <td>100</td> <td>60</td> </tr> <tr> <td>Total</td> <td>300</td> <td></td> </tr> </tbody> </table> <p>(a) Calculate the TOTAL marks Richie obtained for the examination.</p> <p style="text-align: center;">Answer _____ marks (1 mark)</p> <p>(b) Express the total marks that Richie obtained as a percentage of the maximum marks for the test.</p> <p style="text-align: center;">Answer _____ % (2 marks)</p> <p>(c) How many MORE marks did Richie need in order to get 80% on the test?</p> <p style="text-align: center;">Answer _____ marks (2 marks)</p>	Subject	Maximum Marks	Marks Obtained	Essay	100	70	Mathematics	100	80	Language Arts	100	60	Total	300					
Subject	Maximum Marks	Marks Obtained																		
Essay	100	70																		
Mathematics	100	80																		
Language Arts	100	60																		
Total	300																			
			41.																	

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here												
			KC	AT	PS										
42.	<p>At a fair, four plastic bottles with numbers on them are lined up as shown below.</p>  <p>For every turn, a person is given three balls to knock down three bottles. The numbers are added and a toy is given for some EXACT scores as shown on the table below.</p> <table border="1" data-bbox="402 867 773 1045"> <thead> <tr> <th>Toy</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Rabbit</td> <td>49</td> </tr> <tr> <td>Bear</td> <td>46</td> </tr> <tr> <td>Parrot</td> <td>40</td> </tr> <tr> <td>Monkey</td> <td>39</td> </tr> </tbody> </table> <p>(a) Candy knocks down three bottles marked 18, 9 and 12.</p> <p>Which toy does she win?</p> <p>Answer _____ (1 mark)</p> <p>(b) Candy wants to win the bear. Which THREE bottles should she knock down?</p> <p>Answer _____ (2 marks)</p> <p>(c) Candy knocks down the bottle marked 9. Which toy will she NOT be able to win?</p> <p>Answer _____ (2 marks)</p>	Toy	Score	Rabbit	49	Bear	46	Parrot	40	Monkey	39				
Toy	Score														
Rabbit	49														
Bear	46														
Parrot	40														
Monkey	39														
DO NOT WRITE HERE			KC (3)	AT (5)	PS (2)	TOTAL (10)									

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
43.	<p>The shape of a floor shown below has two portions, an equilateral triangle (A) attached to one side of a square (B) with sides of 12 m.</p>  <p>(a) Complete the following statement: The perimeter of the ENTIRE floor is _____ m. (1 mark)</p> <p>(b) The square portion (B) ONLY is to be covered with tiles.</p> <p>(i) The area of B is _____ m². (1 mark)</p> <p>(ii) B is to be covered using square tiles with sides measuring 30 cm. How many tiles are needed? Answer _____ tiles (1 mark)</p> <p>(iii) One of the tiles to be used for covering B costs \$4.00. How much will the tiles cost if 10 extra ones are added in case any break? Answer \$ _____ (2 marks)</p>				
			43.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here																						
			KC	AT	PS																				
44.	Complete Akeem's shopping bill below. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Item</th> <th style="width: 20%;">Quantity</th> <th style="width: 20%;">Cost</th> <th style="width: 45%;">Amount Paid</th> </tr> </thead> <tbody> <tr> <td>(a) Crayons</td> <td>3 boxes</td> <td>\$4.50 per box</td> <td><input style="width: 50px; height: 20px;" type="text"/> (1 mark)</td> </tr> <tr> <td>(b) Stickers</td> <td><input style="width: 50px; height: 20px;" type="text"/> (2 marks)</td> <td>40¢ each</td> <td><input style="width: 50px; height: 20px;" type="text"/> (1 mark)</td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td>\$21.50</td> </tr> <tr> <td>(c) VAT</td> <td></td> <td>10%</td> <td><input style="width: 50px; height: 20px;" type="text"/> (1 mark)</td> </tr> </tbody> </table>	Item	Quantity	Cost	Amount Paid	(a) Crayons	3 boxes	\$4.50 per box	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)	(b) Stickers	<input style="width: 50px; height: 20px;" type="text"/> (2 marks)	40¢ each	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)	Total			\$21.50	(c) VAT		10%	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)	44.			
		Item	Quantity	Cost	Amount Paid																				
		(a) Crayons	3 boxes	\$4.50 per box	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)																				
		(b) Stickers	<input style="width: 50px; height: 20px;" type="text"/> (2 marks)	40¢ each	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)																				
		Total			\$21.50																				
(c) VAT		10%	<input style="width: 50px; height: 20px;" type="text"/> (1 mark)																						
DO NOT WRITE HERE	KC (3)	AT (5)	PS (2)	TOTAL (10)																					

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
45.	<p>The shaded triangle at P is moved to various positions, Q, R and S.</p> <p>Describe CLEARLY the movements in EACH of the following:</p> <p>(a) P to Q</p> <p>Answer _____ (2 marks)</p> <p>(b) R to S</p> <p>Answer _____ _____ (1 mark)</p> <p>(c) P to S</p> <p>Answer _____ _____ (2 marks)</p>				
			45.		
DO NOT WRITE HERE			KC (1)	AT (2)	PS (2)
			TOTAL (5)		

No.	TEST ITEMS	WORKING COLUMN	<i>Do Not Write Here</i>																
			KC	AT	PS														
46.	<p>Six boys ran the 100 m race. The time (in seconds) taken by each boy is shown in the graph below.</p> <p style="text-align: center;">Time taken to run 100 m</p> <table border="1"><caption>Data from the bar chart</caption><thead><tr><th>Boys</th><th>Time (seconds)</th></tr></thead><tbody><tr><td>Al</td><td>11</td></tr><tr><td>Ben</td><td>12</td></tr><tr><td>Che</td><td>14</td></tr><tr><td>Don</td><td>12</td></tr><tr><td>Eze</td><td>10</td></tr><tr><td>Fred</td><td>13</td></tr></tbody></table> <p>(a) Who won the race?</p> <p>Answer _____ (1 mark)</p> <p>(b) For which position were two boys tied?</p> <p>Answer _____ (1 mark)</p> <p>(c) Who was the SLOWEST runner?</p> <p>Answer _____ (1 mark)</p>	Boys	Time (seconds)	Al	11	Ben	12	Che	14	Don	12	Eze	10	Fred	13				
Boys	Time (seconds)																		
Al	11																		
Ben	12																		
Che	14																		
Don	12																		
Eze	10																		
Fred	13																		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
	<p>(d) How long did the race last?</p> <p>Answer _____ seconds (1 mark)</p> <p>(e) How much longer than the first-place runner did the slowest boy take to run the race?</p> <p>Answer _____ seconds (1 mark)</p>		46.			
DO NOT WRITE HERE			KC (1)	AT (2)	PS (2)	TOTAL (5)

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, CHECK YOUR WORK ON THIS TEST.