FORM SEA/2011

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.

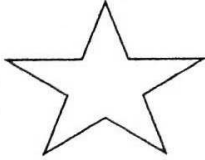Marks will be given for correct steps taken.

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

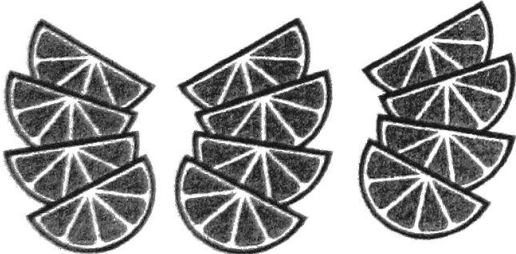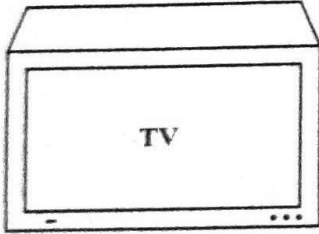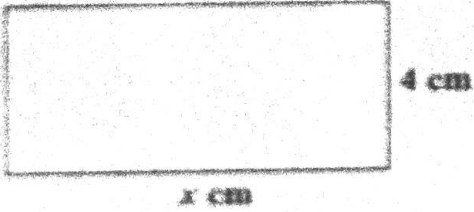This page is deliberately left blank

SECTION I

**EACH question is worth 1 mark. Answer ALL questions.
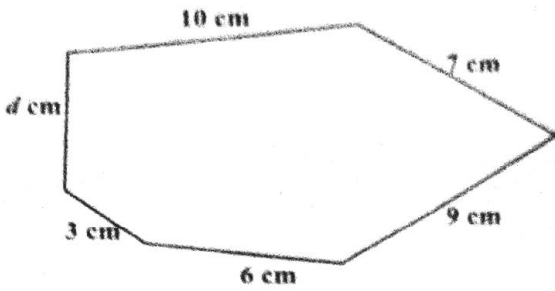Show ALL working in the Working Column.**
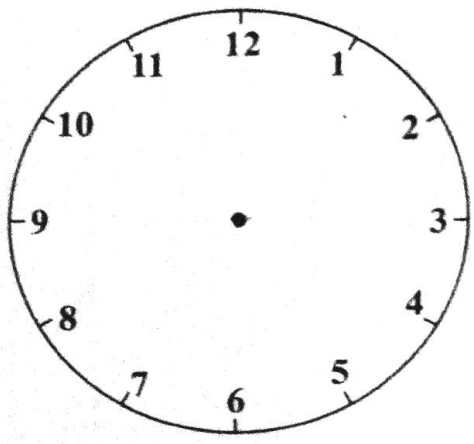
No.	TEST ITEMS	WORKING COLUMN		Do Not Write Here	
				KC AT	PS
1.	Calculate: 1996 − 684 ─────── Answer ───────		1.		
2.	Write in words: 12 540 Answer ───────────── ─────────────		2.		
3.	A starfish has 5 arms as shown below. How many arms will 16 starfish have? Answer ──────── arms		3.		
4.	Write 8.74 to the NEAREST tenth. Answer ────────		4.		
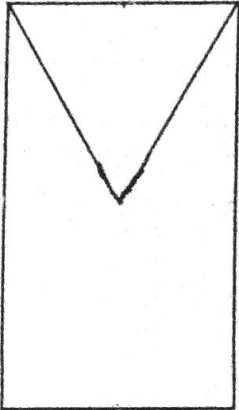
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
5.	Arrange the fractions below in ASCENDING order. (Begin with the SMALLEST.) $\frac{1}{4}$ $\frac{1}{12}$ $\frac{1}{3}$ $\frac{1}{6}$ Answer _____		5.			
6.	Jamie divides an orange into 12 equal slices. She gives $\frac{3}{4}$ to her friend. How many slices does Jamie give to her friend? Answer _____ slices		6.			

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
7.	The whole shape below is divided into the portions shown. 30% | 10% | x% | x% | x% What number does x represent? Answer _____ %		7.			
8.	Ms Mohammed is paying cash for the TV and receives a 20% discount. Cash Price - $520 TV Calculate the amount of this discount. Answer $_____		8.			

DO NOT WRITE HERE	KC (2)		AT (4)		PS (2)		TOTAL (8)	

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
9.	A rope is 2.5 m long. What is its length in centimetres? Answer _____ cm		9.			

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
10.	How many quarters (25¢ coins) will Tori get in exchange for a $5.00 note? Answer _____ quarters		10.			
11.	Sam bought a book for $3.75. He sold it for $5.25. How much profit did he make? Answer $ _____ _____		11.			
12.	The width of the rectangular card below is 4 cm. The length, x cm, of the card is twice the width. 4 cm x cm Calculate the area of the card. Answer _____ cm²		12.			

No.	TEST ITEMS	WORKING COLUMN		Do Not Write Here		
				KC	AT	PS
13.	A piece of board has the shape shown below. The perimeter of the board is 40 cm. Calculate the length of the side marked d cm. Answer $d =$ _____ cm		13.				
14.	Indira awoke at quarter past seven. Draw in the hands on the clock below to show the time Indira awoke. 		14.				

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
15.	School starts at 8:45 a.m. Sally arrived half of an hour late. What time did she arrive at school? Answer _____ a.m.				

DO NOT WRITE HERE	KC (2)		AT (4)		PS (1)		TOTAL (7)	

No.	TEST ITEMS	WORKING COLUMN		
16.	Draw the line or lines of symmetry in the plane shape below.		16.	
17.	Sajani is facing the North. She turns CLOCKWISE to face the East. Through how many degrees has Sajani turned? Answer _____ degrees		17.	

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

18. In the diagram below, the two angles labelled 'a' are equal. Calculate the value of 'a'.

Answer a = _____ _____ degrees

18.

DO NOT WRITE HERE	KC (1)		AT (1)		PS (1)		TOTAL (3)	

19. The graph below shows the number of children buying ice-cream from Monday to Friday.

represents 14 children

How many MORE children bought ice-cream on Monday than on Wednesday?

Answer _____ _____ children

19.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
20.	The pie chart below shows the favourite sports of the students of Standard 4. The angle for tennis is $x°$. Calculate the value of x. Answer $x =$ _____ degrees		20.		

DO NOT WRITE HERE	KC (0)		AT (1)		PS (1)		TOTAL (2)	

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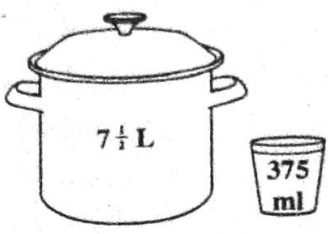
EACH question is worth either 2 or 3 marks. Answer ALL questions. Show ALL working in the Working Column.

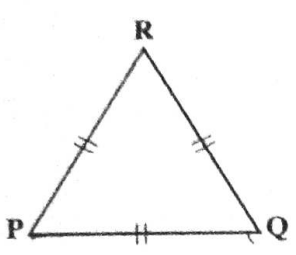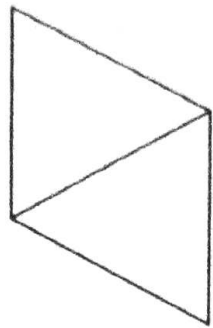| No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
21.	Calculate: $$16\frac{1}{5} \div 2\frac{7}{10}$$ Answer _____ **(2 marks)**		21.		
22.	Ravi has 56 marbles. Scott has half as many as Ravi. How many marbles do they have ALTOGETHER? Answer _____ marbles **(2 marks)**		22.		
23.	In a speed-reading competition, Anna read 10 pages for every 7 pages that Kevin read. At the end of the competition, Kevin read 140 pages. How many pages did Anna read? Answer _____ pages **(2 marks)**		23.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
24.	Tom sets out on a journey of 1 km. He ran $\frac{1}{3}$ km and then walked $\frac{3}{5}$ km. What fraction of the journey did Tom still have to travel to complete 1 km? Answer _____ ____ (2 marks)		24.			
25.	There were 15 weeks in the school term. Paul went to school for the first 2 weeks and was absent the next week. This pattern was repeated throughout the whole term. For how many weeks was Paul present during the term? Answer _____ weeks (3 marks)		25.			
26.	(a) Write in the box below the sign, > or <, that CORRECTLY completes the number sentence. $\frac{3}{4}$ ☐ $\frac{2}{3}$ (b) Find the difference between $\frac{3}{4}$ and $\frac{2}{3}$. Answer _____ (3 marks)		26.			
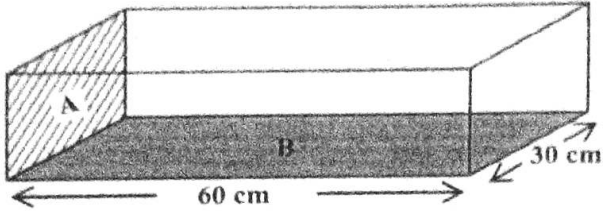
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
27.	Complete the table below by writing in the CORRECT percentage at (a) and fraction at (b).				

Table in item 27:

Fraction (lowest term)	Percentage	Decimal
$\frac{2}{3}$	(a) %	
(b)		0.005

(3 marks)

27.

28. Study the number pattern below.

1	4	9			36

(a) Write in the TWO missing numbers.

Answer _____ . _____

(2 marks)

(b) What is the NINTH number in this number pattern?

Answer _____ . _____

(1 mark)

28.

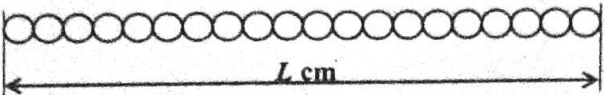| DO NOT WRITE HERE | KC (5) | AT (10) | PS (5) | TOTAL (20) | |

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
29.	A food vendor made $7\frac{1}{2}$ litres of soup for sale. She sells the soup in servings of 375 ml. $7\frac{1}{2}$ L 375 ml How many servings of soup can she get from the $7\frac{1}{2}$ litres? Answer _____ servings (2 marks)		29.		
30.	The combined weight of Jane and her sister, Nora, is 51.4 kg. If Jane is 5.6 kg heavier than Nora, how much does Nora weigh? Answer _____ kg (2 marks)		30.		

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here

			KC	AT	PS

31. The sides of triangle PQR are equal in length. The perimeter of PQR is 21 cm.

R

P   Q

Diagram II

(a) What is the length of PQ?

Answer _____ cm

(1 mark)

(b) Two triangles identical to PQR are combined as shown in Diagram II to form a new shape.

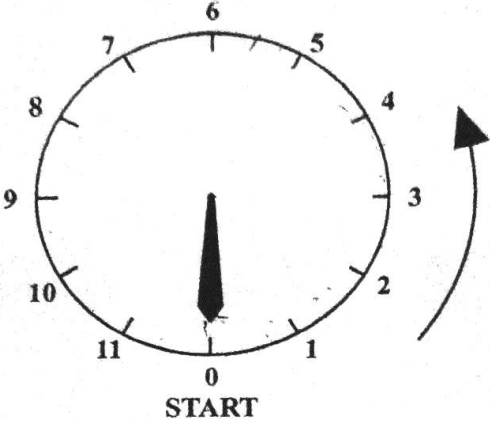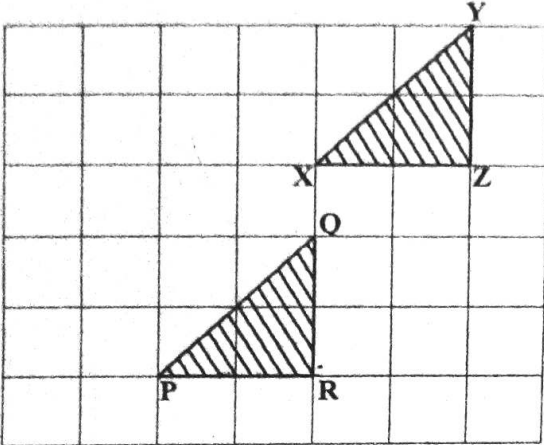Find the perimeter of the new shape.

Answer _____ cm

(1 mark)

31.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

32. The volume of the cuboid fish tank shown below is 72 000 cm³.

(a) What is the area of its base labelled B?

Answer _____ cm²

(1 mark)

(b) How deep is the fish tank?

Answer _____ cm

(1 mark)

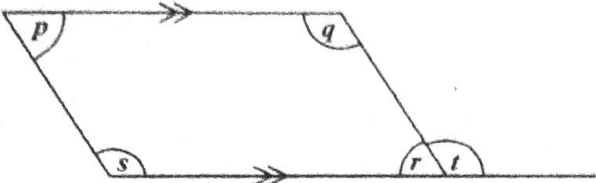(c) Calculate the area of the shaded side A.

Answer _____ cm²

(1 mark)

32.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

33. Chelsea bought some items at Reflex Clothing Store. Her bill is shown below. Some values are not stated.

Reflex Clothing Store

Quantity	Item	Unit Cost	Cost
1	Track Pants	@ $55.00	$55.00
3	T-shirts	@ $20.00	☐
5	Handkerchiefs	@ $4.00	$20.00
	Total before VAT		$135.00
	VAT 15%		☐
	Total Cost after VAT		☐

Calculate

(a)   the cost of the 3 T-shirts

Answer $_____ _____

(1 mark)

(b)   the VAT on her total bill

Answer $_____ ___

(1 mark)

(c)   the TOTAL cost after VAT.

Answer $_____

(1 mark)

33.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

34. Shae designed a gold chain by using 20 thin gold circles arranged as shown below. Each circle has a radius of 1.5 cm.

L cm

(a) What is the diameter of EACH circle?

Answer Diameter = _____ cm

(1 mark)

(b) Calculate the length, L cm, of the chain.

Answer L = _____ cm

(1 mark)

(c) Shae needs a matching bracelet to measure 18 cm in length. How many circles are needed?

Answer _____

(1 mark)

34.
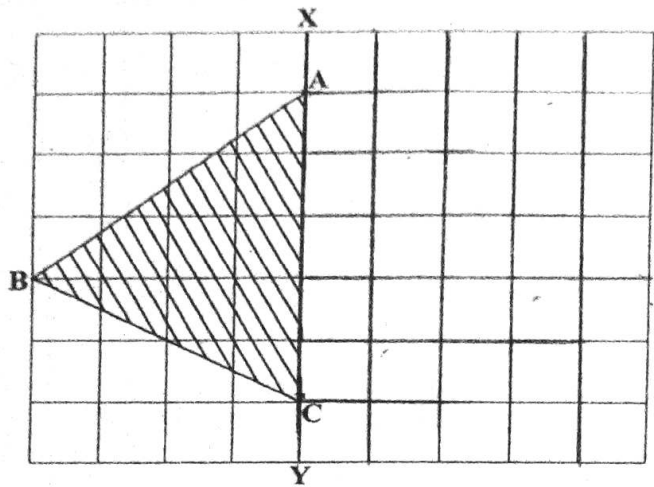
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
35.	The entrance fee to a cricket match was $12 for a teacher and half-price for a student. A group of 20 students and 3 teachers went to the match. Calculate the TOTAL entrance fee for the group. Answer $_____ (3 marks)		35.		

DO NOT WRITE HERE	KC (4)		AT (10)		PS (4)		TOTAL (18)	

No.	TEST ITEMS	WORKING COLUMN		Do Not Write Here	
			KC	AT	PS

36. The gauge needle on a welder's gas tank moves in the direction of the arrow shown below.

START

(a) How many degrees does the needle turn through from START to 8?

Answer _____ degrees

(1 mark)

(b) The needle moves from 0 through 135 degrees. Where is the new position of the needle?

Answer _____ _____

(1 mark)

36.

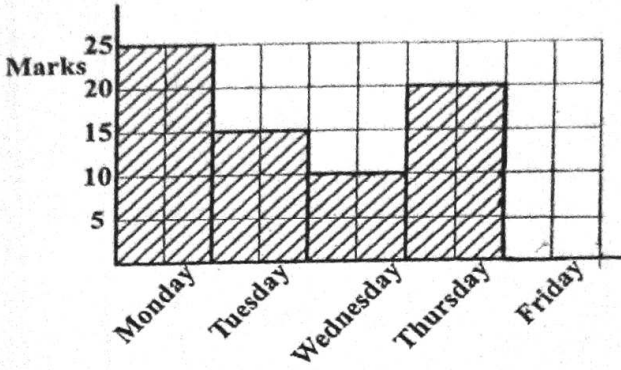| No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
37.	The triangle XYZ is moved to the position of triangle PQR. (a) Name the movement. Answer _____ **(1 mark)** (b) Describe this movement FULLY. Answer _____ _____ _____ **(1 mark)**		37.			

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here

			KC	AT	PS

38. Refer to the diagram below to answer the questions that follow.

(a) Name an angle less than 90°.

Answer _____
(1 mark)

(b) Which angle is APPROXIMATELY one-third of a whole turn?

Answer _____
(1 mark)

(c) Which angles TOGETHER have the SAME measure as a half turn?

Answer _____
(1 mark)

38.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

39. XY is a line of symmetry of the incomplete figure ABCD shown below.

(a) Complete the drawing of ABCD.

(2 marks)

(b) Circle the term from the list below that BEST describes ABCD.

Parallelogram	**Square**
Quadrilateral	**Rhombus**

(1 mark)

39.

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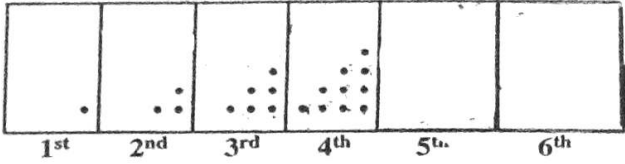
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
40.	The incomplete graph below shows the marks that John scored in Mathematics each day during a particular week.				

John scored a total of 80 marks for that week. Complete the graph to show how many marks he scored on Friday.
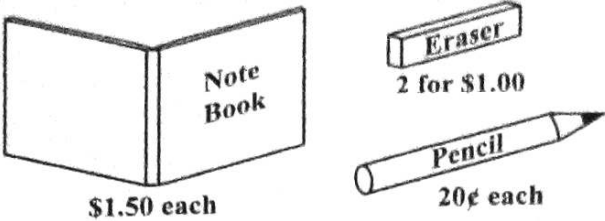
(2 marks)

40.

SECTION III

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

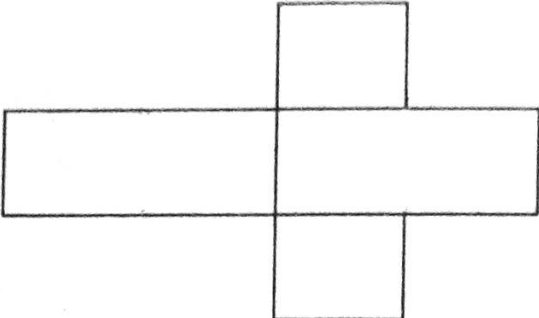| No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
41.	Jamie uses dots to create a set of patterns as shown below. **(a)** How many dots are in the FOURTH (4th) pattern? Answer _____ dots **(1 mark)** **(b)** Draw the FIFTH and SIXTH patterns in the space on the diagram. **(2 marks)** **(c)** How many dots are in the EIGHTH pattern? Answer _____ dots **(2 marks)**				
			41.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
42.	A farmer harvested 600 peppers from his garden. He sold 90% of the peppers and gave the remainder to a children's home. (a) (i) Calculate the number of peppers the farmer sold. Answer _____ peppers **(2 marks)** (ii) How many peppers did he give away? Answer _____ peppers **(1 mark)** (b) The farmer sold the peppers at 5 for $8.00. Calculate how much money he made from the peppers sold in Part (a). Answer $ _____ **(2 marks)**		42.		

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
43.	Ms Brown borrowed $1200 at 20% simple interest for 2 years.				
	(a) How much interest did she pay?				
	Answer $_____ (2 marks)				
	(b) How much money did she repay ALTOGETHER?				
	Answer $_____ (1 mark)				
	(c) Ms Brown repaid the TOTAL amount in EQUAL monthly payments. How much did she pay EACH month?				
	Answer $_____ (2 marks)	43.			

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here

			KC	AT	PS

44. The pictures below show the costs of notebooks, erasers and pencils.

Note Book
$1.50 each

Eraser
2 for $1.00

Pencil
20¢ each

Use the information to complete the table below.

	Number of Items			Total Cost
	Notebooks	Erasers	Pencils	
(a)	3	6	15	
(b)	3	_____	15	$10.00

(5 marks)

44.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
45.	**Item 45** refers to the figure below.				

(a) Draw TWO lines on the figure above so that it forms the net of a solid.

(2 marks)

(b) Name the solid formed when the net is folded.

Answer _____ _____

(1 mark)

(c) The solid formed has _____ edges and _____ vertices.

(2 marks)

45.

DO NOT WRITE HERE	KC (1)	AT (2)	PS (2)	TOTAL (5)

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS

46. The points scored by Sam for 5 games are given in the table below.

Game 1	Game 2	Game 3	Game 4	Game 5
34	29	43	34	55

(a) What is the modal number of points scored?

Answer _____

(1 mark)

(b) Calculate the mean number of points scored for a game.

Answer _____ _____

(2 marks)

(c) His mean score for 6 games was 42. Calculate his score on Game 6.

Answer _____ _____

(2 marks)

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.