CHRIST CHURCH FOUNDATION SCHOOL

END OF YEAR PROMOTION EXAMINATION
THURSDAY 12th JUNE, 2003

FIRST FORMS MATHEMATICS DURATION: 1¾ HRS

NAME: ..... FORM: .....

INSTRUCTIONS:
1. Answer ALL the questions.
2. Section A: (a) Use the space to the right of each question for working.
   (b) Shade in the correct answer (letter) with a pencil.
3. Section B: (a) You MUST show all necessary working in the space provided.
   (b) Use the space under or next to the question for working.
   (c) Answers must be placed in the space provided.

SECTION A (20 marks)

1. $(-2) \times (-3) =$

(A) -6 (B) -5

(C) 5 (D) 6

2. $\frac{3}{4} - \frac{2}{3} =$

(A) $\frac{1}{12}$ (B) $\frac{5}{7}$

(C) 1 (D) $1\frac{5}{12}$

3. $5a + 4b + 3a - 6b =$

(A) $8a + 10b$ (B) $2a - 2b$

(C) $2a + 10b$ (D) $8a - 2b$

4. Two interior angles of a triangle are 42°

and 75°. The value of the third angle is

(A) 33° (B) 60°

(C) 63° (D) 117°

5. The H. C. F. of 12 and 30 is

(A) 3 (B) 6

(C) 60 (D) 120

6. A vendor buys a pen 90¢ and sells it to make a profit of 40%. The selling price of the pen is

(A) 36¢ (B) $1.26

(C) $1.30 (D) $3.60

7. The marked price of a book is $20. If there is a sales tax of 10%, then the selling price is

(A) $2 (B) $18

(C) $22 (D) $30

8. If $P = \{3,4,5,6\}$ and $Q = \{5,6,7\}$, then $P \cap Q =$

(A) {7} (B) {5,6}

(C) {3,4,7} (D) {3,4,5,6,7}

9. A rectangular floor measures 6 m by 5 m. Its perimeter is

(A) 11 m (B) 22 m

(C) 30 m (D) 60 m

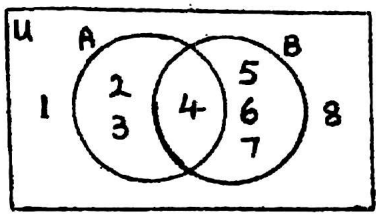
10. The least number of marbles which can be shared equally among 8 or 12 boys is

(A) 12 (B) 16

(C) 24 (D) 36

SECTION B (60 marks)

11. (a) Use the Venn diagram below to answer the following questions:



(i) $A \cup B =$ Ans: {.....} (2 m)

(ii) $A' =$ Ans: {.....} (2 m)

(iii) $n(B) =$ Ans: (1 m)

(b) How many subsets can be formed from set A in the above diagram?

Ans: ..... (1 m)

(c) In a class of 32 students, 20 like cricket and 18 like netball. How many like both types of games?

Ans: ..... (2 m)

12. (a) A father divides a sum of money between his daughter and son in the ratio 3 : 4 respectively.

(i) What fraction of the money did the son receive?

Ans: ..... (2 m)

(ii) If the sum of money is $28, calculate the amount the daughter receives?

Ans: ..... (2 m)

(b) A lawyer charges $85 per hour.

(i) How much money would a client have to pay if the lawyer worked for 8 hours on their case?

Ans: ..... (2 m)

(ii) Calculate correct to the nearest cent the lawyer's rate per minute.

Ans: ..... (2 m)

13. (a) Simplify each of the following: (i) $3p - 4q + 5p + 6q$

Ans: ..... (2 m)

(ii) $(-3y) \times y^2$

Ans: ..... (2 m)

(b) Solve the equation:

$2x - 7 = 15$

Ans: ..... (2 m)

(c) John had x marbles. He gave away 5 of them. He then bought 2x marbles. John now has 25 marbles.

(i) Write down an equation to represent the above information.

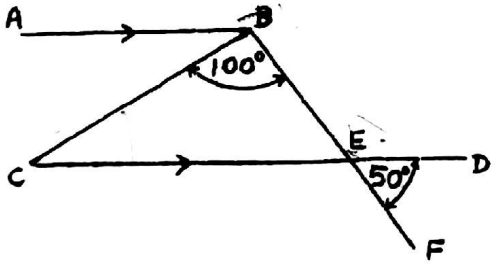
Ans: ..... (1 m)

(ii) Solve the problem to find out how many marbles John started with.

Ans: ..... (2 m)

14. (a) In the shape below, AB is parallel to CD, angle CBE = 100° and angle DEF = 50°.

Calculate the following angles: (i) ∠ BEC



Ans: ..... (2 m)

(ii) ∠ BCE

Ans: ..... (2 m)

(iii) ∠ ABC

Ans: ..... (2 m)

(b) Two angles are complementary. One of the angle is 49°. What is the value of the other angle?

Ans: ..... (1 m)

15. The electricity bills shown below represent the bills for a household for the months of May and June.

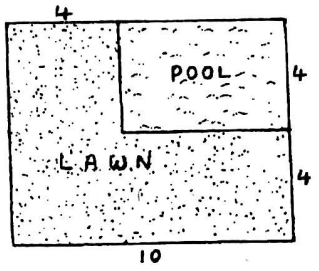
MAY		JUNE		
Present meter reading = 1400 kWh		Present meter reading = 1700 kWh		
Previous „ „ = 1200 kWh		Previous „ „ = 1400 kWh		
kWh used	= 200 kWh	kWh used	= ____ kWh	(1 m)
Fixed charge	= $ 3.00	Fixed charge	= $ 3.00	
Energy charge (5¢ per kWh)	= $10.00	Energy charge (5¢ per kWh) =	= $____	(1 m)
Fuel charge (6¢ per kWh)	= $12.00	Fuel charge (6¢ per kWh) =	= $____	(1 m)
Bill before tax	= $25.00	Bill before tax =	= $____	(1 m)
Value Added Tax (15%)	= $ 3.75	Value Added Tax (15%) =	= $____	(1 m)
Bill after tax	= $28.75	Bill after tax =	= $____	(1 m)

(a) Complete the bill for the month of June.
(b) If the bill for the month of May received a 12% discount, calculate the final bill.

Ans: ..... (2 m)

16. The diagram below shows a rectangular pool partially surrounded by a lawn. The units are metres.

(a) Calculate the perimeter of the lawn.



Ans: .....m. (1 m)

(b) Calculate the area of the lawn.

Ans: ..... m^2 (2 m)

(c) Calculate the number of square tiles of side 2 m needed to cover the lawn.

Ans: ..... tiles (2 m)

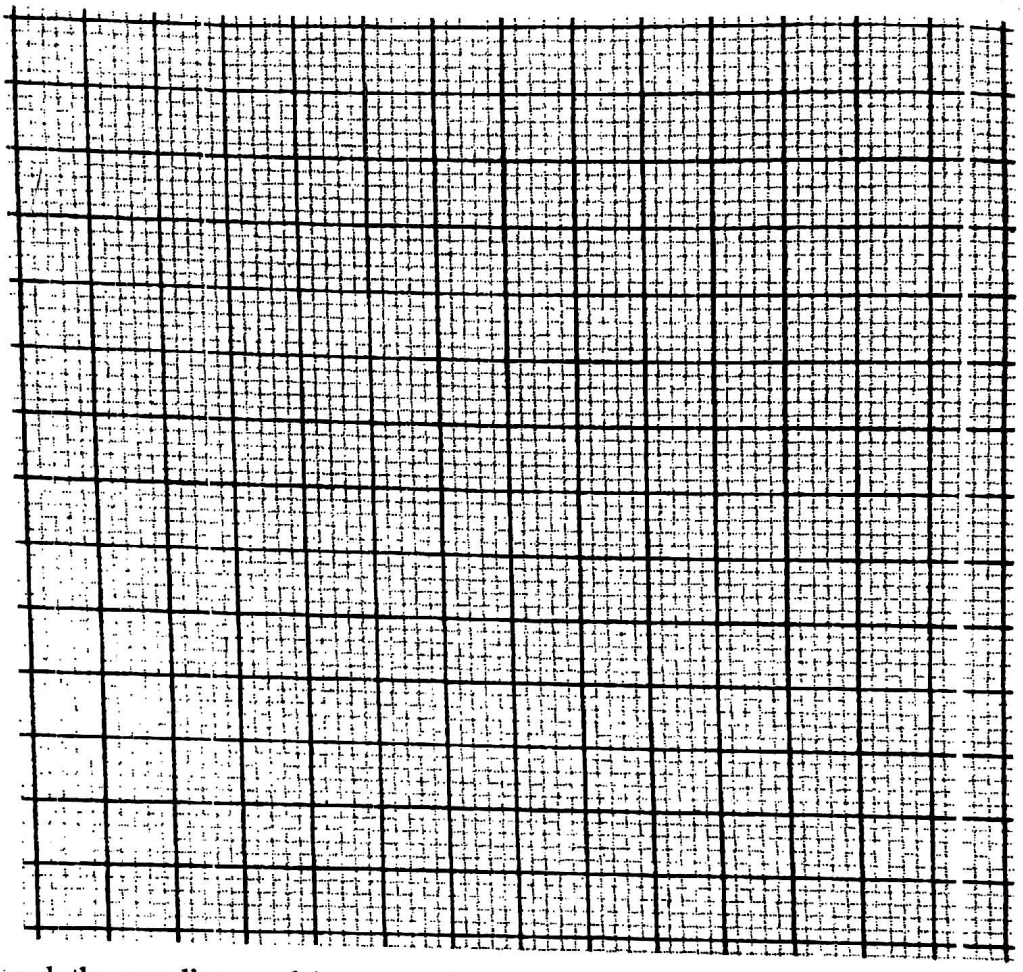
(d) If the pool is 1.5 m deep, calculate the volume of the pool in litres.
[Remember: 1 m = 100 cm and 1 litre = 1000 cm^3]

Ans: .... litres (2 m)

17. (a) Complete the table below for the equation $y = x + 2$.

x	−4	0	3
y	−2		

(2 m)

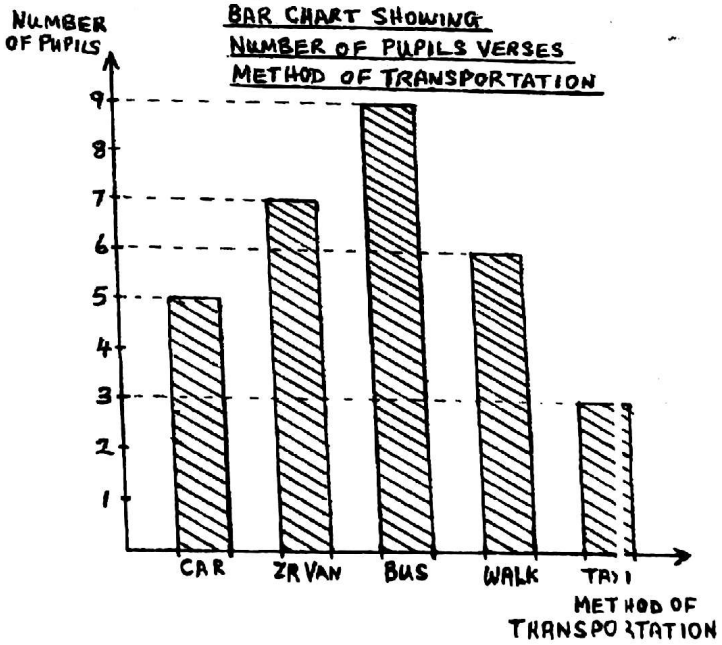


(b) Using a scale of 1 cm to 1 unit on both axes, plot the points from the table and draw the graph of the line $y = x + 2$. (3 m)

(c) On the same graph draw the line $x = 3$. (2 m)

(d) Write down on your graph the coordinates of the point where the two lines meet. (1 m)

18. The bar chart at right shows the methods of transportation a group of pupils take to school.



(a) How many pupils are in the group?

Ans: ..... (1 m)

(b) What is the most popular mode of transport?

Ans: ..... (1 m)

(c) If you wanted to draw a pie chart, what angle would represent ZR van?

Ans: ..... (2 m)

(d) What percentage of the pupils walk to school?

Ans: .....% (2 m)

CHRIST CHURCH FOUNDATION SCHOOL

END OF YEAR PROMOTION EXAMINATION
JUNE 2004
MATHEMATICS

FIRST FORMS DURATION: 1 ¾ HRS

NAME..... FORM.....

INSTRUCTIONS:
ANSWER ALL QUESTIONS

Section A: (a) Use the space to the right of each question for working.
(b) Shade in the correct answer (letter) with a **PENCIL .**

Section B: (a) Please show all necessary working in the spaces provided, and place your answers in the space provided

SECTION A (20 marks):

1. $-7 + 9 =$

   (A) 16 (B) 2

   (C) −2 (D) −16

2. **⅞ converted to a decimal is**

   (A) 0.625 (B) 0.375

   (C) 0.0875 (D) 0.875

3. $⅔ + ½ =$

   (A) 3/5 (B) 7/6

   (C) 2/6 (D) 6/7

4. $6 + (4 - 8) =$

   (A) 2 (B) 10

   (C) −2 (D) −10

5. **$9x - 4x - 9x =$**

(A) $4x$ (B) $22x$

(C) $18x - 4x$ (D) $-4x$

6. **The cost price of Jory's bicycle was $460.00. If he wishes to sell it to make a profit of 25 %, then Jory must sell the bike for**

(A) $115.00 (B) $345.00

(C) $575.00 (D) $485.00

7. **$480.00 was divided between Nadia, Rico and Nejeri in the ratio 1 : 3 : 4 respectively. Rico's share was**

(A) $180.00 (B) $60.00

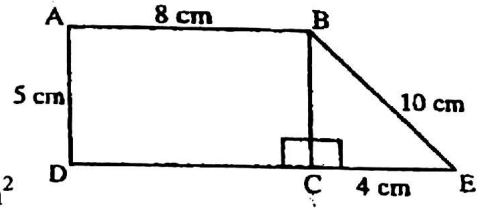
(C) $240.00 (D) $160.00

8. **Two angles whose sum is 180^0 are said to be**

(A) right angles (B) complementary

(C) reflex (D) supplementary

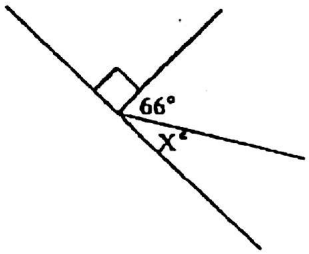
9. **The area of trapezium at right is**



(A) $40\ cm^2$ (B) $50cm^2$

(C) $60cm^2$ (D) $70cm^2$

10. **Angle x in the diagram at right is**



(A) 90^0 (B) 24^0

(C) 114^0 (D) 156^0

SECTION B

11. Express 180 as a product of prime factors.

(3m)

12. Complete the following statements with one word or one number for each space.

(a) An isosceles triangle has _____ equal sides and _____ equal angles

(b) An obtuse angle is greater than _____ , but less than _____.

(c) 2 kilometres = _____ metres.

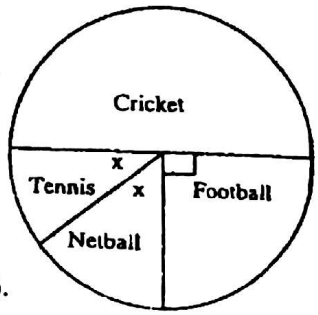
(d) The next two terms in the following sequence are

2, 3, 5, 7, ___, ____

(8m)

13. The pie chart at right shows the favourite sport of each child in form 1A3

(a) If 4 children like tennis best,
how many children are in the class?



Ans: .....**(2m)**.

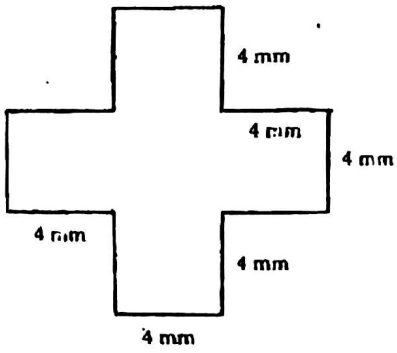
(b) How many children in total like netball and football?

Ans: .....**(2m)**

(c) How many children like cricket?

Ans: .....**(2m)**

14. Calculate the area and perimeter of the below shape

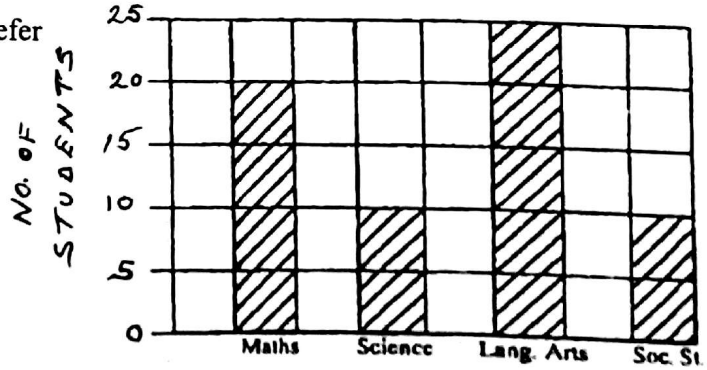


Ans: perimeter = ...**(2m)**

Ans: area = ...**(3m)**

15. Use the Bar Chart below to answer the following:

(a) How many more students prefer Lang. Arts to Soc. St. ?



Ans: .....**(2m)**

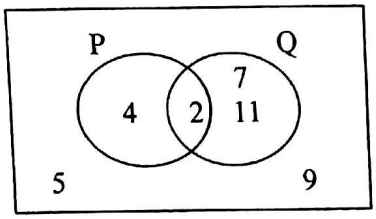
If a student can only have one favourite subject,
how many students were in the survey ?

Ans: .....**(2m)**

(b) What percentage of the students like Lang. Arts?

Ans: ..... **(2m)**

16. (a) Use the Venn diagram to answer the following questions:



(i) PU Q = { } **(2m)**

(ii) Q' = { } **(2m)**

(iii) n(P) = **(2m)**

(b) How many subsets can be formed from set Q in the above diagram?

Ans: ..... **(2m)**

17. **SKYYY TRAVEL AGENCY**

AIR FARES

	JUNE	JULY
LONDON	$4000	$5000
CANADA	$3500	$4000
MIAMI	$2000	$2500

(a) Mr. Jones travelled to London in July. His wife and daughter traveled to Canada in June. What was their total airfare?

Ans: ..... **(3m)**

(b) If the flight left Barbados at 8:05 am and arrived in London at 3: 55 pm Barbados time calculate how long the flight took.

Ans: ..... **(1m)**

END OF TEST:

PLEASE REVIEW YOUR WORK IF YOU STILL HAVE TIME AVAILABLE.

CHRIST CHURCH FOUNDATION SCHOOL
END OF YEAR PROMOTION EXAMINATION
DATE: JUNE, 2014

1st FORMS MATHEMATICS TIME: 1 3/4 HRS

NAME: ..... FORM: .....

INSTRUCTIONS:

1. **Answer <u>all</u> of the questions**
2. **Section I:**
   i. **Use any space between the questions for working.**
   ii. **Using a pencil, <u>shade</u> the letter which corresponds to the right answer.**
3. **Section II:**
   i. **Show all necessary working in the space provided.**
   ii. **Answers must be placed in the space provided.**

SECTION I (20 marks)

INSTRUCTIONS

i. **Use any space between the questions for working.**
ii. **Using a pencil, <u>shade</u> the letter which corresponds to the right answer.**

1. $2\frac{1}{4} + \frac{1}{2} =$

(A) $\frac{4}{6}$ (B) $2\frac{2}{6}$ (C) $2\frac{3}{4}$ (D) 4

2. $5.4 \div 0.03$

(A) 0.18 (B) 1.8 (C) 18 (D) 180

3. $3b + b - 5b + 2b =$

(A) b (B) $2b$ (C) $-4b$ (D) $10b$

4. $15 + 6 \div 3 \times 10 =$

(A) 7 (B) 17 (C) 35 (D) 50

5. If D = {c, a, k, e} and M = {e, a, s, y} then D ∩ M =

(A) {a, e} (B) { } (C) {c, k, y, s} (D) {c, a, k, e, s, y}

6. The least number of sweets that can be shared equally among 5 or 12 children is

(A) 17 (B) 60 (C) 90 (D) 180

7. If $150.00 is divided between Peter and John in the ratio 7: 8, John gets

(A) $ 8 (B) $ 15 (C) $ 45 (D) $ 80

8. A rectangular floor is 17m long and 5m wide. Its area is

(A) $22m^2$ (B) $30m^2$ (C) $44m^2$ (D) $85m^2$

9. Jerry buys a SpongeBob watch for $40 and sells it for $60. What is his percentage profit?

(A) 20% (B) 50% (C) 66.67% (D) 80%

10. Shera has an average of 60% in 5 tests. If her scores in 4 tests are: 70%, 40%, 50% and 80%; how much did she get in her 5^{th} test?

(A) 35% (B) 60% (C) 75% (D) 80%

SECTION II (60 MARKS)

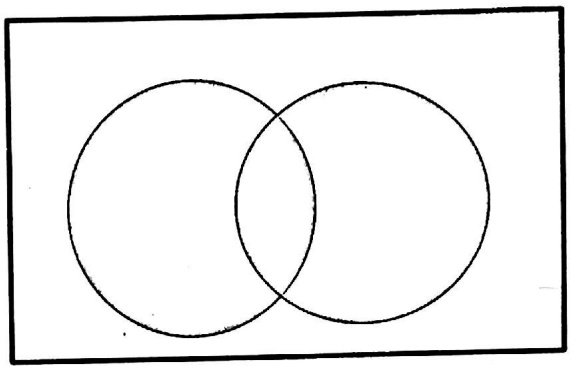
INSTRUCTIONS

i. **Show all necessary working in the space provided.**

ii. **Answers must be placed in the space provided.**

11. Given the sets:

U= {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}; A= {2, 4, 6, 8}; B = {3, 6, 7, 9}



a. i. Complete the Venn diagram above by filling in the information given. **[3 marks]**

ii. $A \cap B$ = Ans: {.....} **[1 mark]**

iii. A' = Ans: {.....} **[1 mark]**

iv. n(B)= Ans: ..... **[1 mark]**

v. How many subsets can the set A have?

Ans: ..... **[2 marks]**

b. In a group of 90 students, 60 like pizza and 45 like KFC. How many students like both; if every student likes at least one food?

Ans: ..... **[2 marks]**

12. a. Chloe and her friends plan a breakfast party. They make pancakes using the following recipe: '
If the recipe makes 8 servings; how much milk would be required for 12 servings?

Basic Pancake Recipe For Children

Ingredients

100 g white plain flour
1 egg
160 ml milk
150 ml water
1 teaspoon olive oil

Ans: ..... **[2 marks]**

b. Mr. Singh leaves an inheritance of $125 000.00 to be shared amongst his three children in the ratio 2:3:5 according to their ages. How much more money does the oldest child get than the youngest?

Ans: ..... **[3 marks]**

13. a. Solve the equation:

$4x - 2 = 10$

Ans: ..... **[2 marks]**

b. Simplify each of the following:

i. $2r + 3q - 4r + 7q$

Ans: ..... **[2 marks]**

ii. $5m^2 \times -4t$

Ans: ..... **[2 marks]**

c. Given that $m = 4$ and $n = -2$, calculate $n^2 \div m$.

Ans: ..... **[2 marks]**

14. Mary leaves home at 9:55 a.m. and arrives in town at 10:36 a. m.

a. i. How long did it take Mary to get to town?

Ans: ..... **[1 mark]**

ii. If she spends $1\frac{1}{2}$ hours in town; at what time does she leave town?

Ans: ..... **[1 mark]**

b. I think of a number. When I triple it and add 2, the result is 113.

i. Write an equation that represents this information.

Ans: ..... **[1 mark]**

ii. Solve the equation to find the number that I thought of.

Ans: ..... **[2 marks]**

15. Complete the table below for the equation $y = 2x - 1$

a.

x	-3	0	2
y	-7		

[2 marks]

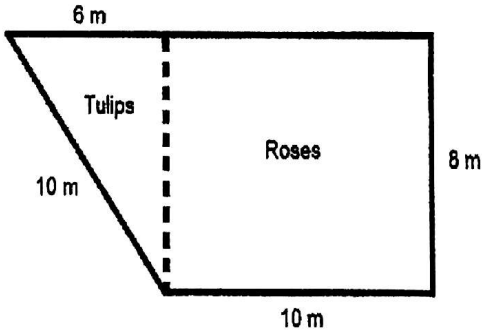
b. On the graph paper provided, plot the points from the table above and draw the graph of $y = 2x - 1$. **[4 marks]**

c. On the same graph draw the line y = 1. **[1 mark]**

d. Write down the coordinates of the point where the two lines meet.

Ans: ..... **[2 marks]**

16. a. My mother's flower garden is shaped as follows:



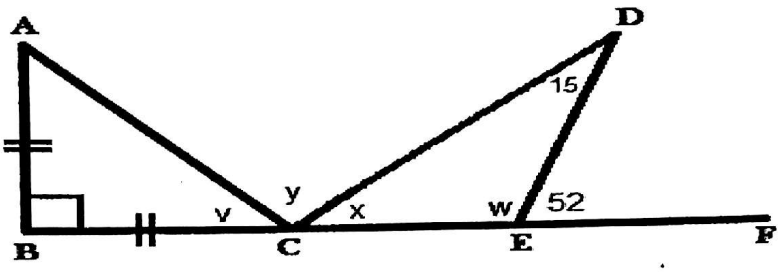
i. What is the perimeter of my mother's flower garden?

Ans: ..... **[3 marks]**

ii. How much more area does my mother's roses have than her tulips?

Ans: ..... **[3 marks]**

b. The diagram below shows two triangles ABC and CDE side by side. Angle ABC is a right angle; angle CDE = 15^0 and angle DEF = 52^0. The sides AB and BC are equal lengths.



Calculate the size of the angles marked w, x, y and v.

i. w =

Ans: ..... **[2 marks]**

ii. x =

Ans: ..... **[2 marks]**

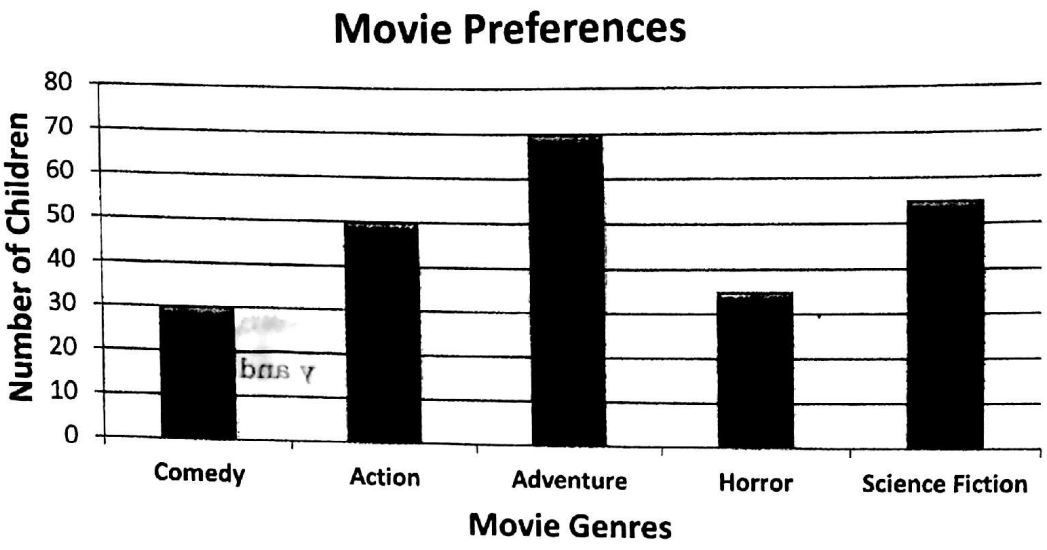
iii. v =

Ans: ..... **[2 marks]**

iv. y =

Ans: ..... **[2 marks]**

17. A survey was carried out amongst a group of first form students to find out their movie genre preferences. The results are shown in the bar chart below



a. Based on the bar chart how many children in total were questioned in the survey?

Ans: ..... **[1 mark]**

ii. Which genre do the students least prefer to watch?

Ans: ..... **[1 mark]**

iii. How much more students prefer to watch Adventures to Science Fiction?

Ans: ..... **[1 mark]**

iv. What percentage of the students interviewed prefer to watch Comedies?

Ans: ..... **[2 marks]**

b. The results of students' favourite drinks are shown in the following tally table:

Drinks	Votes
Apple Juice	𝍸 𝍸 𝍸
Pepsi	𝍸 𝍸 |
Coke	𝍸 𝍸 𝍸 𝍸
Milk	𝍸 𝍸 𝍸 ||

i. How many more students prefer Coke to Pepsi?

Ans: ..... **[2 marks]**

ii. If the Milk column was calculated incorrectly and is missing 3 more votes; what would the new number of votes be and how would this be represented in the tally table?

Ans: ..... **[2 marks]**

END OF TEST