MOTHERCARE PREPARATORY SCHOOLS SET II REVISION WORK TERM I - 2020

P.7 MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

INDEX NO:	Random No.		Personal No.
Candidate's Name:	GUIDE	SET TWO	
Candidate's Signatu	ıre:	Stream:	AC.
School Random No		monds	in minost pists
District ID:			

Read The Following Instructions Carefully.

- The paper has two sections: A and B.
- All the working for both sections A and B must be shown in the spaces provided.
- All working must be done using a blue or black ball point pen or fountain pen. Diagrams must be drawn in pencil.
- 4. Un necessary changes of work may lead to loss of marks.
- 5. Any handwriting that cannot easily be read may lead to loss of marks.
- Do not fill anything in boxes indicated: "For Examiners' Use only" and those inside the question paper.

	FOR EXAMIN	ERS' USE ONLY	THE REAL PROPERTY.
SECTION	EXRS MARKS	T/L MARKS	OFFICE
A			
В			
TOTAL		THE PARTY OF THE P	

SECTION A: (40 MARKS)

Answer all questions in this section.

Questions 1 to 20 carry two marks each.

1. Work out: 86 - 68

2. Write 44 in Roman numerals.

3. Simplify: 5- 8

5. Find the square root of 64.

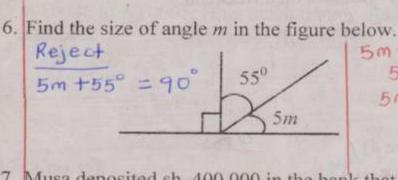
$$2 \left\langle \frac{2}{2} \frac{64}{32} \right| = 2 \times 2 \times 2$$

$$2 \left\langle \frac{2}{2} \frac{16}{32} \right| = 8 \text{ M}$$

$$2 \left\langle \frac{2}{2} \frac{1}{8} \right| = 2 \times 2 \times 2$$

$$2 \left\langle \frac{2}{2} \frac{1}{8} \right| = 8 \text{ M}$$

$$2 \left\langle \frac{2}{2} \frac{1}{4} \right| = 2 \times 2 \times 2$$



5m+55"+90"=180"

7. Musa deposited sh. 400,000 in the bank that offers an interest rate of 5% per month for 6 months. Find the amount of money he earned at the end of the

period.

$$SI = PXRXT$$
 $SI = Sh \frac{38000}{1000} \times \frac{5}{100} \times 6$
 $SI = Sh 20,000 \times 6^{\frac{1}{2}}$
 $SI = Sh 120,000 B_1$
 $SI = Sh 120,000 B_1$
 $Sh 520,000 B_1$

Amount

8. Change 30m/s to km/hr
$$30m = 1 \text{ km}$$

$$30m = 1 \text{ km}$$

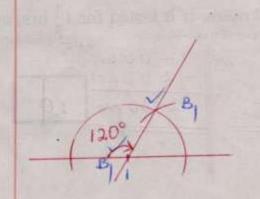
$$1000$$

$$30m = \frac{3 \text{ km}}{100}$$

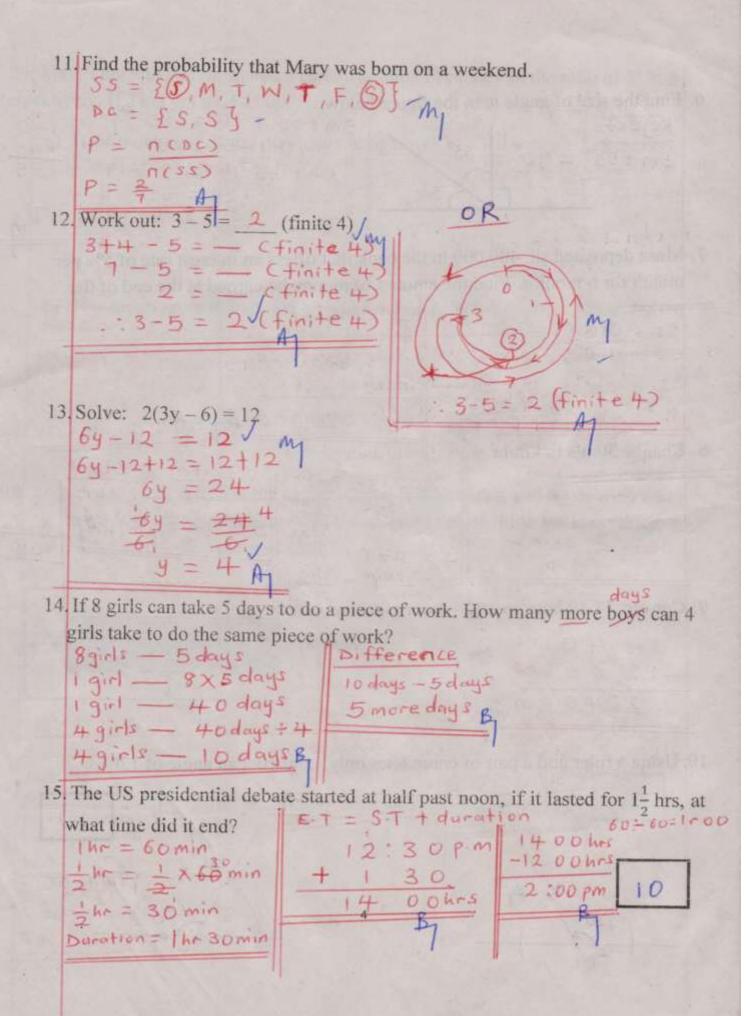
 $30m = \frac{1}{1000} \times \frac{3600}{3600} = \frac{3}{100} \times \frac{3600}{3600} = \frac{3}{100} \times \frac{3600}{3600} \times \frac{3}{100} \times \frac{3600}{3600} \times \frac{3}{100} \times \frac{3}{$ 9. Convert 14 40 hour to a 12 - hour clock system.

14 40 hrs my -12 00 hrs my 2:40 p.m Ay

10. Using a ruler and a pair of compasses only, construct an angle of 120°.



Turn over



16 Paul bought Airtime cards of sh 20,000 each numbered consecutively from AT0046 to AT0065. How much money did he pay altogether? Ne ofairtime cards Amount 20 x Sh 20000 -AT0046 Sh 400,000 By 17. Work out; 18. If represents 8balls, draw pictures to represents 40 balls. 8 balls = 1 picture 40 balls = #0 pictures
= 5 pictures By @ @ @ B @ B 19. Represent 402 on an abacus. 20. Triple the angle which is $\frac{1}{9}$ of its complement Let the angle be n Angle 1 Complement Turn over 9n+n=90-n+n 10n = 90

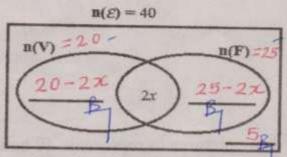
SECTION B: (60 MARKS)

Answer all questions in this section. Marks for each question are indicated in the brackets.

21 In a class of 40 pupils, 20 like volleyball (V), 25 like football. (F), 2x like both games while 5 pupils do not like any of the two games.

a) Complete the Venn diagram below.

(3 marks)



b) Find the number of pupils who like both games

(3 marks)

$$20-2x+2x+25-2x+5=40 \text{ My}$$
 $20+25+5-2x=40 \text{ Pupils who like both}$
 $50-2x=40$
 $50-50-2x=40$
 $2x=105$
 $2x=10$

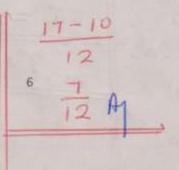
22. Akello has three types of medicine. She takes them at the intervals of 6 hours, 8 hours and 12 hours respectively. If she takes all of them in the morning, after how long will she take all the three types of medicine again?

(2m	ar	ks)				
100000	2	6	8	12		2 X 2 X
	2	3	4	6		8 X
	2	3	2	3	m	- 11
1	3	3	7	3		24
I PE		1	1	1		Atter
	-					Total Tills
64	22		3	5		2

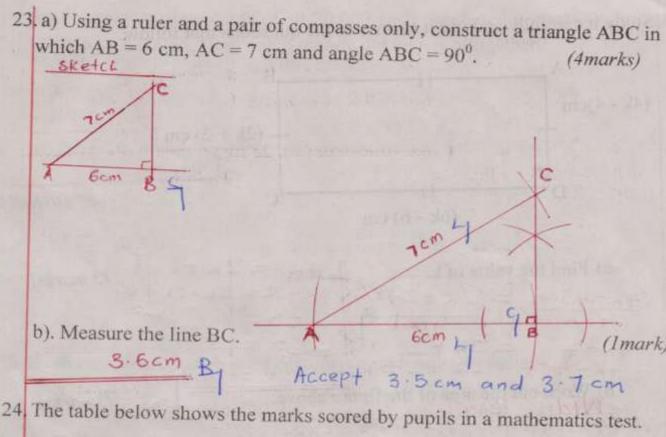
2 x3 hrs 24 hours

0	R	-
M6 = {	6,12,18, 24,30,36	-3
My = 1	8,16, 27, 32,	3
Mizit	12, 24, 3	
	fter 24 hours	

)	Simplify: $\frac{3}{4} - \frac{5}{6} + \frac{2}{3}$
	4 十3 6 LCD=12 2 4 X H23 十 多 X H2 - 与 X H22 My
	9+8-10
	12



(2 marks)



Marks scored	80	70	90	60	
Number of pupils	2	3	1	4	

a) How many pupils sat for the test? (2+3+1+4) pupils My 10 pupils A

(2marks)

b) Calculate the mean
$$Mean = Sum of items$$

$$= (80 \times 2) + (70 \times 3) + (90 \times 1) + (60 \times 4) M_1$$

$$= (160 + 210 + 90 + 240)$$

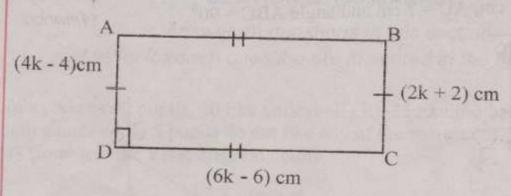
$$= 100 M_1$$

$$= \frac{700}{10} M_1$$

$$= \frac{700}{10} M_1$$

$$= \frac{700}{10} M_1$$

25. Study it carefully and use it to answer the questions that follow.



- a) Find the value of k. (4k-4) cyn = (2k+2) cyn 1 c
- 4K = 2K + 6 4K - 2k = 2K - 2K + 6 (2 marks) 2K = 62K = 6
- b) Work out the area of the figure above.

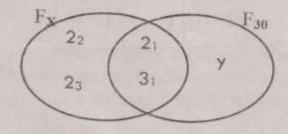
 Whoth length Area

 W= (4 x 3 4) cm L= (6 x 3 6) cm A = L x N

 W= (12 4) cm L= (13 6) cm A = 12 cm x 8 cm

 N= 8 cm B L= 12 cm L A= 96 cm² B
- 26. The Venn diagram below represents the prime factors of two numbers.

 Use it to answer the questions that follow.



a) Find the value of X.

$$X = 2 \times 2 \times 2 \times 3 \text{ M}$$

 $X = 4 \times 6$
 $X = 24 \text{ A}_1$

(2marks)

(3marks)

b) Work out the LCM of X and 30.

$$4 \times 2 \times 3 = 30$$
 $6 \times 3 = 30$
 $6 \times 3 = 30$

2 marks 27. Express 13_{ten} in binary base (3marks) 13ten = 1101 + wo A b) Change 134five to decimal base (3marks) Change 134 five to decimal base 1 | 3 | 4 | five 25 + 15 + 4 | 4 | $5^2 | 5^4 | 5^6 |$ $5^2 | 5^6 |$ $5^5 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ $5^6 |$ 528. Grace went to the market and bought the following items; 3 kg of maize flour at sh. 2,000 per kg 2 loaves of bread at sh. 4,500 each 4 kg of salt for sh. 6,000. a) How much money did she spend altogether? (3 marks) Maize flour Bread | Salt sh 2000 | sh 4500 | sh 9000 | sh 6000 | sh 600 b) If she went with sh. 30,000, find her change. (2 marks) 5h 30,000 mg -sh 21,000 sh 9,000 A Turn over

29 Max, Tina and Nelvin shared a certain amount of money in the ratio of 2: 3: 5 respectively. If Tina got sh. 60,000. OR

(3 marks)

Difference in = 5-2

3 x sh 20000

sh 60,000 mol

3 pourts = sh 60000

a) How much money did they share altogether? 20000 Total ratio = 2+3+5 Let their total share be m 10 $\frac{3}{10}$ of m = sh 60,000m10 parts = 20000FXI m = sh 200,000 10 parts = sh 200000

b) How much more money did Nelvin get than Max? Difference 5 x sh 20000 2 x sh 20000 sh 100,000 5 x sh 20000 2 x sh 20000 sh 60,000 sh Neluin

A piece of cloth is laid at the center of a table 80cm long and 60cm wide and 30. it leaves 5cm all round as shown in the diagram below. Find the area which is not covered by the piece of cloth (5marks)

Sem 5cm 60cm 5 cm Un covered area Table Piece of cloth 4800 cm2 A=LXN L= 80cm - (5cm+5cm) A = 80cm x 60cm L = 80cm - 10cm 3500 cm2 L= Toom E A = 4800 cm 1300 cm2 60 cm - (5cm +5cm) W = 60cm - 10cm W = 50 cm By A = LXN A = TOCM X50cm 10 A = 3500 cm2 B

31 (a) Given that x - y = 2, complete the table below correctly.(2marks@)

X	2	3 B	6
Y	O B	1	4 8
If x = 2	f y=1	if x = 6	iliai kir
$\chi - y = 2$	x-y=2	X-9 = 2	
2-y=2 $2-2-y=2-2$	$\begin{array}{c} X-I = 2 \\ x-I+I = 2+I \end{array}$	6-9=2 6-6-9=2-6	
-y = 0 By	$X = 3_{\underline{R}_1}$	-y = -4	
-y = 0		7 = 4	
7 = 70		y = 4 B	

32 Kivumbi started his journey from Masaka to Kampala a distance of 125km, at 7:00am driving his Hammer at a speed of 60km/hr. At 8:30am he made a stopover at Mpigi to buy Yamachomo for half an hour, if he was to reach kampala for his business meeting at 9:25am, at what speed must he drive his Car? (4marks)

1251	cm		
Masaka 5= 60 km/hr M 1:00 am 8 Masaka to Mpigi		mala- 25 am Pala 160:	-61
Time 8: 80 am -7: 00 am 1hr 30 min/	Time 8:30 am + 30 min 9:00 am	Distances Ir 125km - 90km	00
T= 12 lasy By Distance	9:25 mm -9:00 am / 25 min	Speed S=D+T	
D = 60 km / 12 m D = 60 km / 3 D - 30 km / 3	60 min = 1 hr 5 25 min = 25 hr T = 5 hr 2/	S = 35 km + 5 hrs S = 35 km x 12 S = 35 km x 12	
D = 90 km / B	$T = \frac{5 \text{ hr}}{12} \sqrt{\frac{2}{3}}$	S = 8 4 Km/hr 1	1