PRE-PLE.

P.7 MATHEMATICS B.O.T III EXAMINATION.

SECTION A (40 marks)

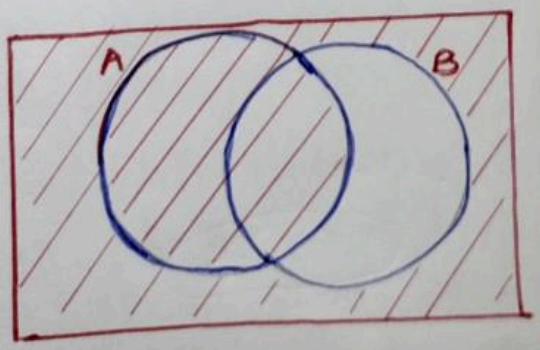
1. Work out 654 + 23

2. Write "Forty-eight thousand, fourteen" in figures

3. Express 00 40 hrs in a 12 hour clock system.

4. Change 6.52 tonnes to kilograms.

5 Describe the unshaded region in the venn diagram below.



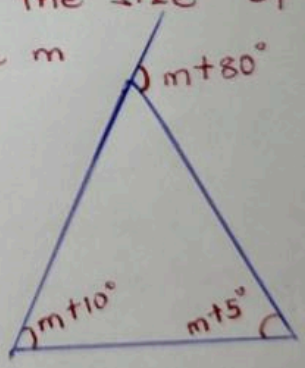
6. Simplify $-4-{}^{+}5$

7. Express $12\frac{1}{2}\%$ as a ratio.

8 Given that $a = \frac{2}{3}$, $b = 1\frac{1}{3}$, Find the value of a:b

9 John bought a pig and sold it after some time at sh. 80000. If he made a loss of sh. 25,000, How much did he buy it.

10 Find the size of angle m



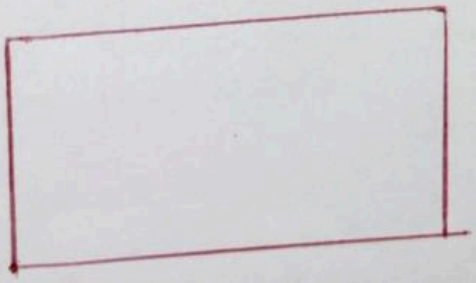
11 Find the sum of the next two numbers in the sequence

$\frac{1}{2}, \frac{3}{4}, \frac{1}{4}, \frac{1}{2}, 0, —, —$

12 Twelve men can do a piece of work in 6 days. How many men are required to do a similar piece of work at the same rate in 6 hours?

13 Work out the range of $-4, -10, 5, 0$ and $+3$

14 Draw a net shape of a triangular prism in the space below.



15 A pilot left Entebbe Airport at 11:30 a.m to London. If the journey took 45 hours, At what time did the pilot reach London?

16 Construct ~~an angle of~~ a complementary angle to 60°.

17 Set $P = \{a, b, c, d, e\}$

$Q = \{a, e, i, o, u\}$

Find $n(P-Q)$

18 Solve for k.

$3^k = 81$

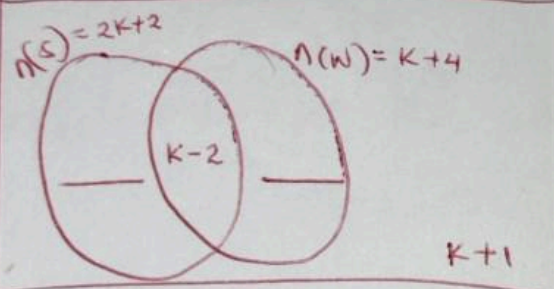
19 Work out. $432_{five} \times 4_{five}$

20 The temperature at the top of the mountain was $-13^\circ c$ and it rose to $-4^\circ c$. By how many degrees did it rise?

SECTION B 60 marks

21. At a birthday party attended by some guests, (2K+2) guests drank Soda (S), (K+4) guests drank water (W), (K-2) guests took both kinds of drinks while (K+1) guests drank none of the two drink.

(a) Use the above information to Complete the venn diagrams below.



2 marks

(b) If 15 guests drank only one kind of drinks, how many guests drank none of the two drinks?

3marks

22 (a) Work out $1001_{two} - 111_{two}$

2 marks

(b) Find the value of the unknown base.

$2001_{p} = 127_{six}$

3marks

23 (a) Masaka is 240km away from Kalungu. A motorist left Masaka to Kalungu at an average speed of 96km/h. How long did he take on his way?

2 marks

(b) If he returned to Masaka using the same route at a speed of 160km/h, Calculate his average speed.

3 Marks

24 (a) Solve for k

$$\frac{2.4 \times k}{0.8 \times 0.18} = 6$$

3 marks

(b) Express 0.2333... as a simplified fraction.

2 marks

25 Using a pair of compasses, a ruler and a sharp pencil only, construct a right angled trapezium ABCD where $\overline{AB} = 7cm$, $\angle BAD = 90^\circ$ $\angle ABC = 60^\circ$ and $\overline{BC} = 4cm$.

5 marks

5 marks

(b) Measure length DC in Centimetres.

1 mark

1 mark

(26) Aejo bought 800 oranges at sh.400 each. She sold 450 oranges of them in heaps of 5 at sh3000 each heap. She grouped the remaining oranges in heaps of 7 and sold each heap at sh.5000 each heap.

(a) Find the total amount of money she earned after selling all the oranges? (4 marks)

(b) Calculate her percentage profit? (2 marks)

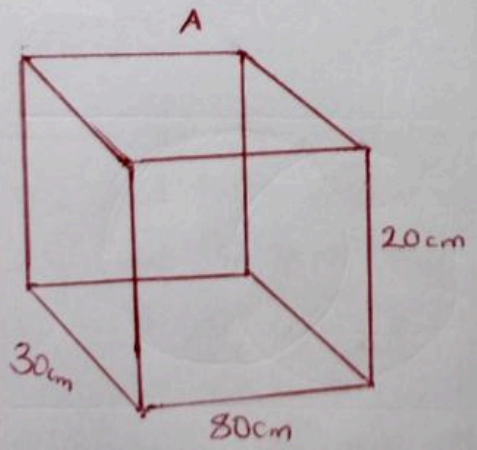
(27) (a) Solve for n

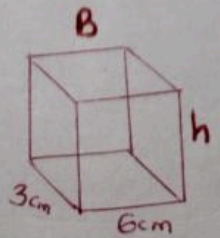
$$2^n - 2^5 = 96$$

(2 marks)

(b) List down all prime factors of 308 (2 marks)

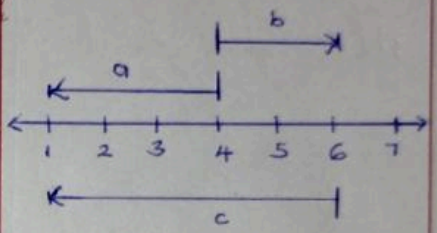
28 In the diagrams below, 520 small boxes of size B were packed in a big box of size A up to the last layer.





If the volume of the empty space left after packing all the possible small boxes was $1200cm^3$, find the height(h) of the small box. (6 marks)

(29) Study the numberline below and answer questions about it.



(a) Write down the integer shown by

a = ____

b = ____

c = ____

(3 marks)

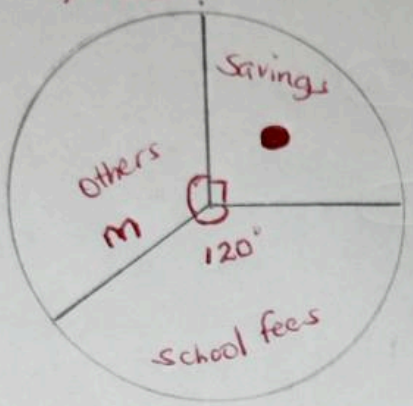
(b) Write a mathematical statement for the above number line. (1 mark)

NO.

(30) A father is 30 years older than his son. 7 years ago, the ratio of their age was 5:2. How old is each now?

5 marks

31 The Piechart below shows how Mrs Jane spends her monthly salary Use it to answer questions that follow.



(a) Find the value of m in degrees. (2 marks)

(b) If she earns sh 480,000 how much does she save (2 marks)

(c) Express the portion for others as a simplified fraction. 1 mark

32 The sum of two numbers is 42 and their difference is 6. Find the numbers. (4 marks)

** END ** **

Good luck

a better tomorrow starts today

Assessment

		K	C	A	20
	A	1	17	2	12
SEC	B	0	8	4	4
SEC			2	34	22
	A		0	38	26
	B			2	
	Total			72	