SHILOH JUNIOR SCHOOL

ITEM SET SIX EXAMINATION

CLASS : PRIMARY SEVEN

SUBJECT : MATHEMATICS

DURATION : 2 HOURS 30 MINUTES

Name ..... Stream .....

Signature ..... District .....

Index No | | | | | | | | | |

Read the following instructions carefully

1. This paper is made up of two Sections: A and B.
2. Section A has 20 questions (40 marks)
3. Section B has 12 questions (60 marks)
4. Attempt all questions. Answers to both sections must be written in the spaces provided.
5. All answers must be written in blue ink. Crossing out of answers will lead to loss of marks.
6. Any handwriting that cannot be easily read may lead to loss of marks.

FOR EXAMINERS USE ONLY		
PAGES	**T. MARKS**	**MARKS S.**
Page 1		
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
Page 9		
Page 10		
Page 11		
Page 12		
T. Pages 12		

SECTION A (40 Marks)

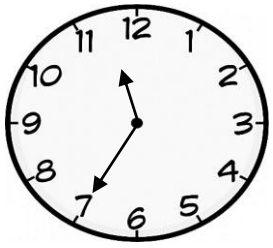
1. Add: 34 + 53

2. Given set R= {1, 2, 3, 4, 5, 6, 7, 8, 9} W = {All square numbers in set R}. Find n(W)′

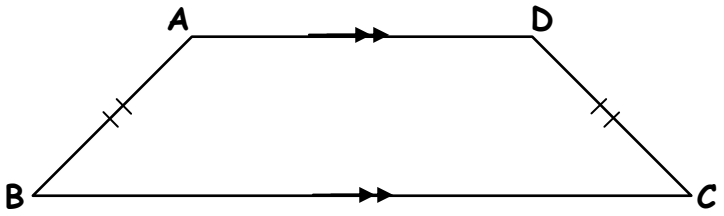
3. Simplify: $\frac{3.6-0.6}{0.5}$

4. Find the next number in the sequence; 23, 19, 17, 13, 11, ____

5. Express the morning time shown on the clock face below in 24hr clock system.

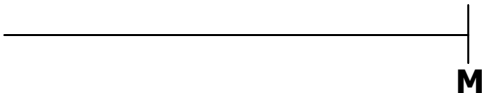


6. How many lines of folding symmetry has the figure below.



7. Given that b=4, a=5. Find the value of $b(a - b)^2$

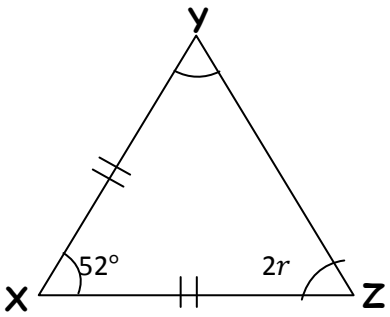
8. Using a ruler, pencil and a pair of compasses only construct an angle of 30°at point **M**.



9. Workout for x: 3 – 4 =x_ (finite 5)

10. Solve: $8p = 3p + 45$

11. Workout the value of r in the figure below:



12. Simplify: $2^{3p} = 64$.

13. Factorise completely $12x^3y - 8y^2x$

14. Round off 49.97 to the nearest tenths.

15. How many $300ml$ are in 12 litres?

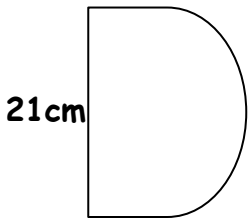
16. Simplify: $\frac{3^4 \times 3}{3^5}$

17. The cost of 1 US dollar is Ug.sh.1250. How many dollars would Tendo buy with Ug.sh. $25{,}000$?

18. Solve: $2 + \frac{x}{12} = 6$

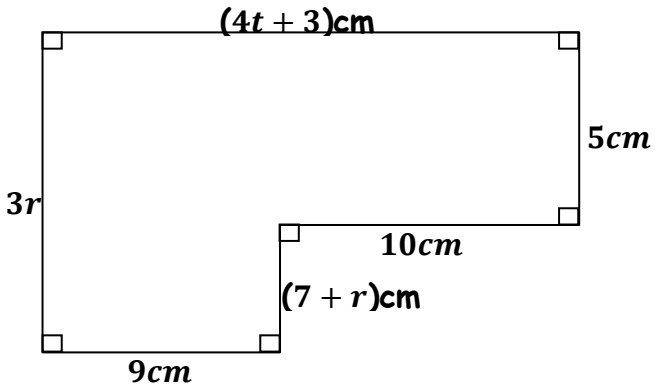
19. Given that set M has 4 subsets, find the number of elements it has.

20. Find the perimeter of the figure below:



SECTION B (60 Marks)

21. Use the figure below to answer questions that follow:



(a) Find the value of r. (**2 marks**)

(b) Calculate the value of t. (**1 mark**)

(c) Find its area. (**3 marks**)

22. Obisa has a radio which uses 18-volt batteries. Each battery has 1.5 volts.

(a) How many batteries does he need to use his radio? **(3 marks)**

(b) Each pair of batteries costs sh. 1500. How much does he need for his radio? **(2 marks)**

23. Azizi's poultry farm produces eggs equivalent to the number expanded below per week.
$(8 \times 10^2) + (2 \times 10^1) + (5 \times 10^0)$

(a) How many eggs does he produce per week? **(2 marks)**

(b) If he sells each tray for sh. 7000. How much money does he earn per week?

(**2 *marks***)

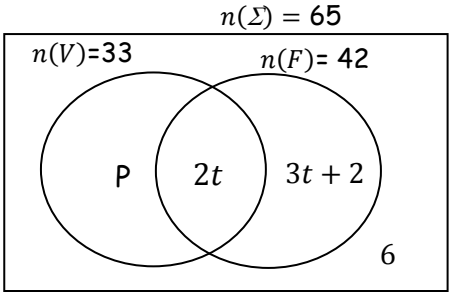
24. (a) Simplify: $\frac{3.6\times2.4}{4.8\times1.2}$ (**3 *marks***)

(b) Express $2\frac{1}{8}$ as a decimal fraction. (**2 *marks***)

25. (a) The centre angle of a regular polygon is 120°. Name the polygon. (**3 *marks***)

(b) Calculate the interior angle sum of the polygon. **(2 marks)**

26. Use the Venn diagram to answer the questions below.



(a) Find t. **(2 marks)**

(b) Calculate the value of P. **(2 marks)**

(c) Workout: $n(V \cup F)^{I}$ **(1 mark)**

27. (a) Workout: $\frac{2}{3} + \frac{1}{2} + \frac{3}{4}$ **(2 marks)**

(b) The number of pupils in Pooti Junior School increased by x% from 800 pupils to 960. Find the value of x. **(3 marks)**

28. Namuga went with a twenty thousand shillings note and bought the following items:

$3kg$ of sugar at sh. 2800 per kg.

$1\frac{1}{2}$ kg of salt at sh.600 per kg.

4 bars of soap for sh.4000. He was given 10% discount

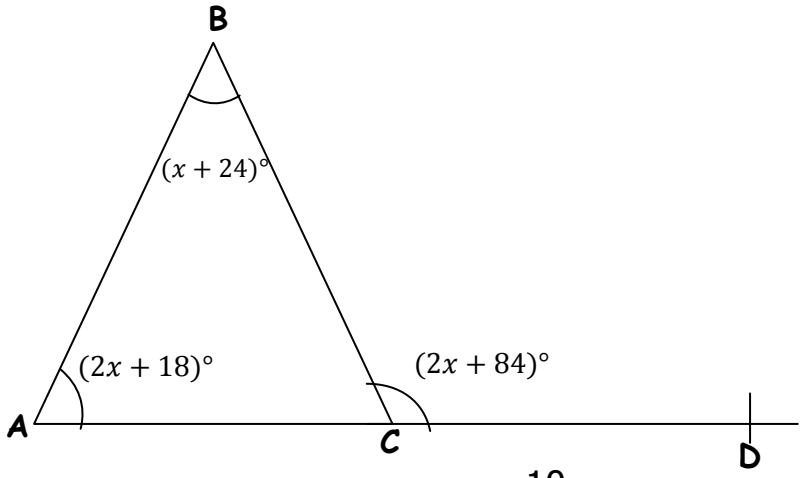
(a) How much did she pay for all the items if she was given a discount of 10%? **(3 marks)**

(b) Find his change after paying for all items. **(2 *marks*)**

29. (a) Add: $0.79 + 4 + 13.6$ **(2 *marks*)**

(b) Multiply: 479×32 **(2 *marks*)**

30. Use the figure to answer.



(a) Find x. **(3 marks)**

(b) Find angle ACB. **(2 marks)**

31. (a) The perimeter of a rhombus is 52cm, one of the diagonals is 10cm. Find the length of the other diagonal. **(2 marks)**

(b) Calculate its Area. **(3 marks)**

32. Town R is 80km west of Town P and town T is 60km south of Town P.

(a) Draw a sketch to show the three towns. $(\mathbf{1\ mark})$

(b) A motorist moved from town R to T via town P. Using a scale of 1cm to represent 20km draw an accurate diagram to show his movement.
$(\mathbf{3\ marks})$

(c) Find the direct distance from R to T. $(\mathbf{1\ mark})$

(d) Find the bearing of T from R. $(\mathbf{1\ mark})$

*****Good Luck*****