



DIVINE EDUCATION CENTRE  
**BEGINNING OF TERM 2 EXAMINATION 2023**  
**MATHEMATICS – P.6**

***Time Allowed: 2Hrs 30MIN***

Name:.....

Stream:.....

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 short questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **ALL** questions. All answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiner's use only.

**FOR EXAMINER'S USE ONLY**

Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 24		
25 – 28		
29 - 32		
TOTAL		

***Turn over***

**SECTION A: (40 MARKS)**

1. Work out: 3  
        X2      
              

2. Find the next number in the sequence: 3, 5, 7, 10, 13, \_\_\_\_, \_\_\_\_

3. Find the expanded number below.  $7000 + 500 + 8$

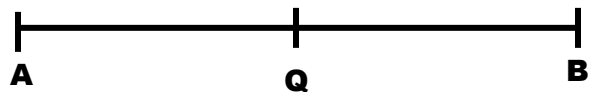
4. Given that  $Q = \{\text{the first three positive even numbers}\}$ . List all the subsets in set Q

5. Becky wrote a certain number as:  
1 group of fives and 3 groups of ones.  
Express the numeral as a binary base.

6. If  $b=3$ , Evaluate  $(2b)^2$

7. Given the data: -2, -3, 4 and 3.  
Find their range .

8. Using a pair of compasses, ruler and a pencil , bisect the line A B below through point Q



9. Given that  $k$  and  $37^\circ$  are complementary angles.  
Find the value of  $k$  in degrees.

10. An examination which took  $2\frac{1}{2}$  hours ended at 5:30pm.  
At what time did the exam start?

11. The cost of three pens is sh.9,000.  
How many pens will one buy with sh.15,000?

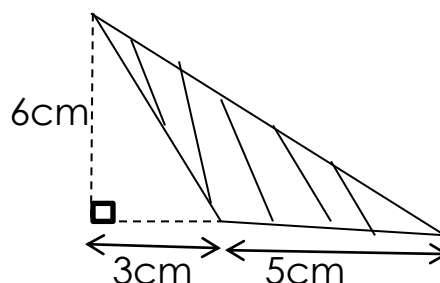
12. Solve:  $\frac{2p}{3} = 6$

13. What is  $\frac{2}{3}$  of 18 tomatoes?

14. Round off 73.46 to one place of decimal.

15. Find the least number of books which can be shared among 12 boys or 18 girls equally and leaves no book remaining.

16. Find the area of the shaded part.

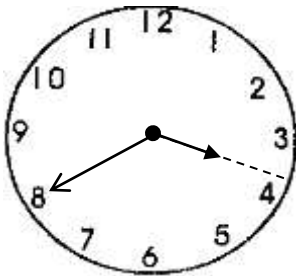


17. In a class, 14 are boys and 17 are girls.

Find the probability of picking a girl at random to be the class coordinator.

18. Evaluate:  $\frac{1}{3} + \frac{3}{4}$

19. What afternoon time is shown by the clock face below?



\_\_\_\_\_

20. The base area of a rectangular tin is  $28\text{m}^2$ .

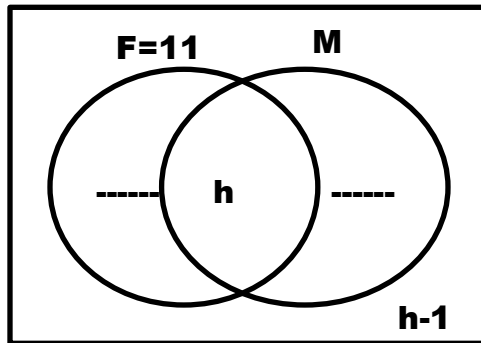
Find its volume if the height is 5m.

**SECTION B:60 MARKS**

21. At a party, 11 guests ate fish(F), 9 guests ate meat only,  $h$  ate both fish and meat while  $(h-1)$  did not eat any of the two dishes.

a) Use the above information to complete the Venn diagram below.

**(2marks)**



- b) If 2 guests did not eat any of the two dishes. Find the value of  $h$ .

**(2marks)**

- c) How many guests attended the party?

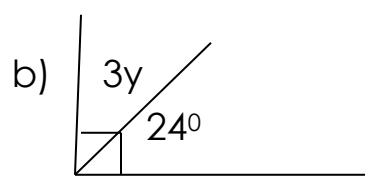
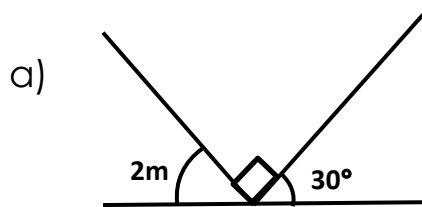
**(2marks)**

22. The sum of 3 consecutive counting numbers is 24, if the smallest number is  $w$ . Find the biggest number.

**(4marks)**

23. Find the value of the unknown angle.

( 2marks @)

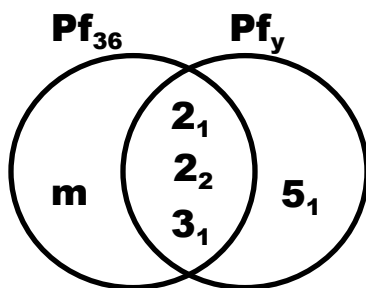


24. Betty is 3 years older than Ritus. The sum of their age is 19.

How old is Betty?

(4marks)

25. Use the venn diagram below to answer the questions that follow.



a) Find the value of : (2marks each)

i) m

(ii) y

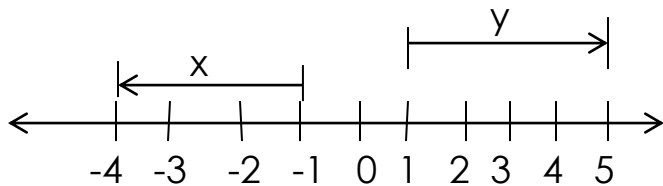
b) Work out the HCF of  $Pf_{36}$  and  $Pf_y$

(2marks)

26. a) Simplify :  $-3 + -5$

( 2marks)

b) Use the number line below to answer questions.



Write the integer represented by:

(1mark @)

i) x

(ii) y

27. Emily went to the shop and bought the following items.

Items	Quantity	Unit cost	Total cost
Soap	2 bars	Sh.6500	Sh. ....
Sugar	$1\frac{1}{2}$ kg	Sh. ....	Sh.7500
Salt	..... kg	Sh.2000	Sh.6000
<b>TOTAL EXPENDITURE</b>			<b>Sh. ....</b>

a) Complete the table above. (show your working)

(4marks)

b) If she remained with sh.3500, how much money did he have at first?

(2marks)

28. a) Subtract:  $231_{\text{five}}$   
 $\underline{\quad\quad\quad}$   
 $\quad - 12_{\text{five}}$   
 $\underline{\quad\quad\quad}$

**(2marks)**

b) Find the value of 4 in  $423_{\text{five}}$  .

**(2marks)**

29. The table below shows the marks scored by different pupils in a P.6 entry interview.

Marks scored	40	80	60	90
Number of pupils	2	3	4	1

a) How many pupils did the interview?

**(2marks)**

b) Calculate the mean mark

**(3marks)**

c) If the average mark was the pass mark, how many pupils passed the interview?

**(1mark)**



30. In a class of 60 pupils  $\frac{3}{4}$ , of them are girls and the rest are boys.

a) What fraction is for boys. **(1 mark)**

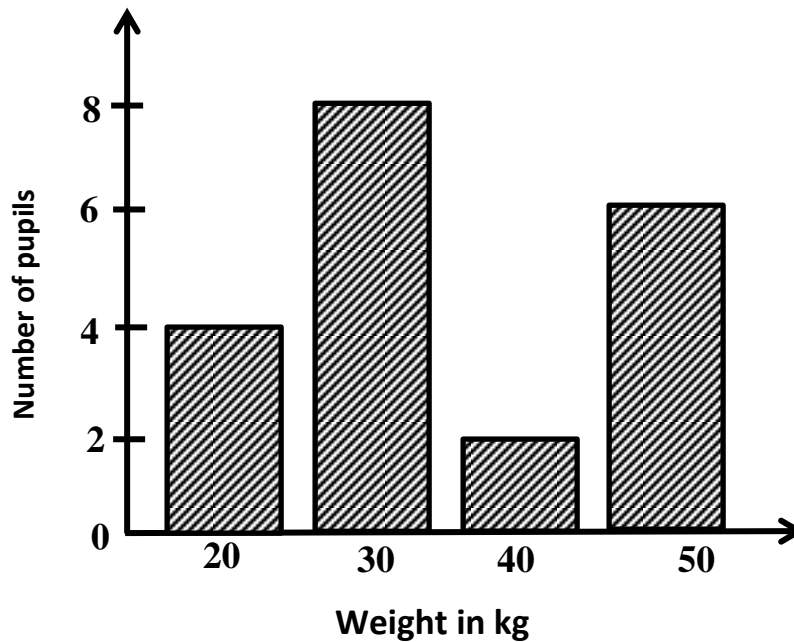
b) How many girls are in the class? **(2marks)**

c) How many more girls than boys are in the class? **(3marks)**

31. a) Using a pair of compasses, ruler and a pencil only, construct an equilateral triangle in a circle of radius 4cm. **(3marks)**

b) Measure one of its side and find the total distance round the triangle  
(2marks)

32. The graph below shows the weight of pupils recorded on a certain day. Use it to answer questions that follow.



a) How many pupils were recorded on that day? (2marks)

b) Find the modal weight. (1mark)

b) Calculate the total weight for the pupils who weigh 50 kg less (2marks)