

KAMPALA PREPARATORY SCHOOL

PRE PLE SET 17 EXAMINATION

2022



MATHEMATICS

Time allowed: 2 hours 30 minutes

Random No.						Personal No.		

Candidate's name:

Candidate's Signature:

District ID:

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Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections **A** and **B**. Section **A** has **20 questions** and **section B** has **12 questions**. This paper has **16 pages** printed altogether.
3. Answer **all** questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **NOT** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to loss of marks.
7. Do not fill anything in the table indicated
"For examiners' use only" and the boxes inside the question paper.

FOR EXAMINERS'		
USE ONLY		
Qn. No.	MARKS	EXR'S No.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Turn Over

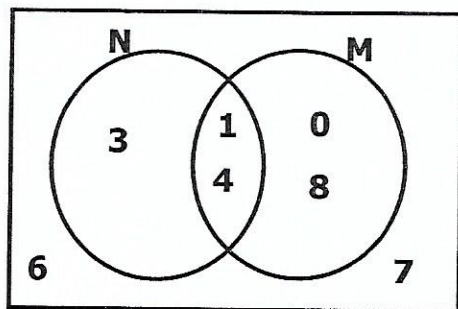
SECTION A:

1. Work out: $53 - 12$

2. Simplify: $4p - 6p + 7p$

3. Work out: $\frac{2}{3} + \frac{1}{6}$

4. Use the Venn diagram below to find $n(N)'$



5. The LCM of two numbers is 120 and their HCF is 6. If one of the numbers is 24, find the other number.

6. Work out: $203_{\text{five}} - 142_{\text{five}}$

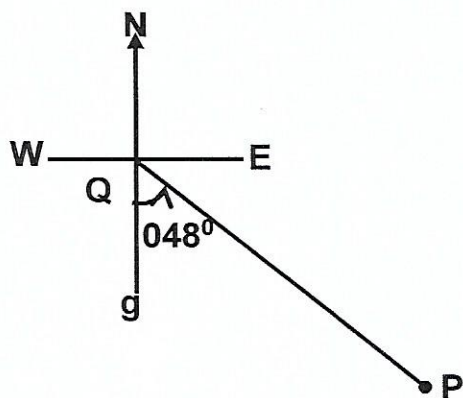
7. Round off 23.49 to one decimal place.

8. Use a numberline to work out 3×-2



9. At 60km/h, John takes 2 hours to cover a journey. How long will he take to cover the same journey at 40km/h?

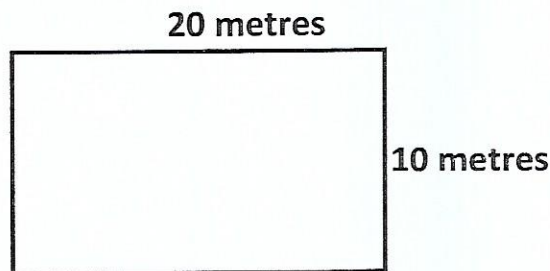
10. Use the diagram below to find the bearing of Q from P.



11. A shopkeeper bought a dress at sh.18000 and sold it at a profit of 20%. What was the selling price of the dress?

12. Given that $a = 2$, $b = 5$ and $c = -3$, find the value of $\frac{5a - 2bc}{b}$

13. The diagram below shows a rectangular fence on a piece of land. Find the number of posts used if the spacing between the posts was 4 metres.



14. The cost of 7 books is 42000, find the cost of 2 dozens of similar books.

15. A truck from Mbarara was carrying 800 bunches of matooke. When the truck hit a pot hole, $\frac{1}{4}$ of the bunches fell off. How many bunches remained on the truck?

16. Work out: $7 - 9 = (\text{mode } 12)$

17. Express 0.0497 in scientific notation.

18. Solve : $\frac{1}{2} + m = 3$.

19. Use a ruler, a pencil and a pair of compasses only, construct an angle of 105° in the space below.

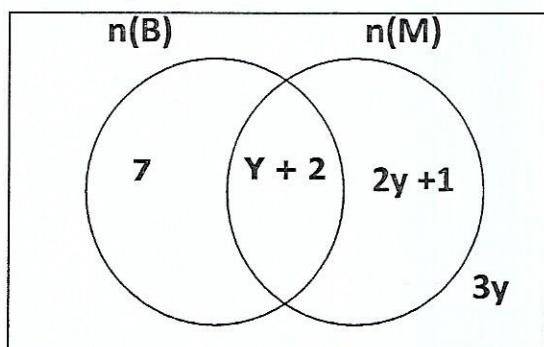
20. Work out:

Hours	Minutes
7	43
+3	38
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SECTION B:

21. The Venn diagram below shows farmers who grow Beans (**B**) and Maize (**M**) some of the farmers grow both while 21 grow other crops.

$$n(\Sigma) =$$



- (a) Find the number of farmers who grow only one crop.

- (b) Work out the number of farmers who do not grow maize.

22. a) Work out $\frac{1}{2}$ of $(\frac{1}{2} + \frac{1}{3}) - \frac{1}{24}$

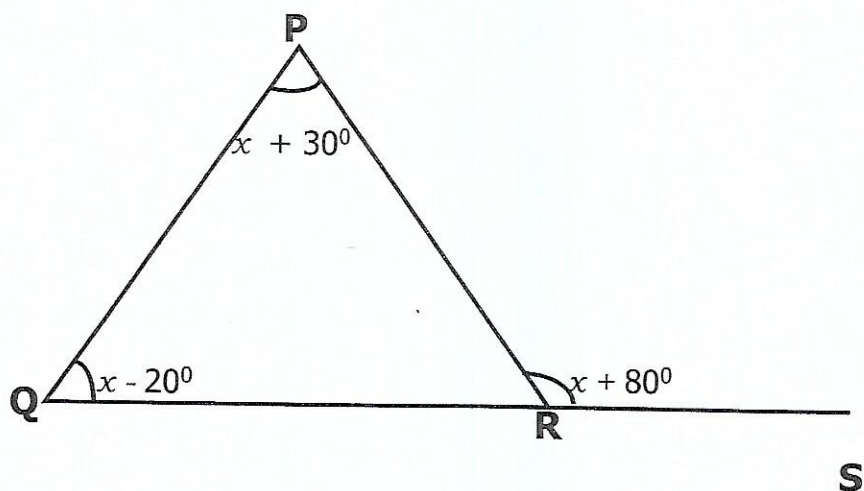
b) Simplify: $\frac{0.74 - 0.5}{0.02 \times 0.3}$

23. (a) Write CDXLVI in Hindu-Arabic numerals.

(b) Find the product of the value 7 and the value of 5 in the number 67325

24. Okello, Odur, Atim contributed sh. 24000, sh. 36000 and sh. 60000 respectively for a joint business which made a profit of sh.51000 by the end of the business. Find the amount of money which was shared according to their initial contributions.
25. (a) Find the number of square tiles each 15cm needed to cover a room measuring 6m by 3m.
- (b) If in each box, there are 20 tiles and each box costs sh. 25000. Find the amount of money that will be spent to cover the room with tiles.

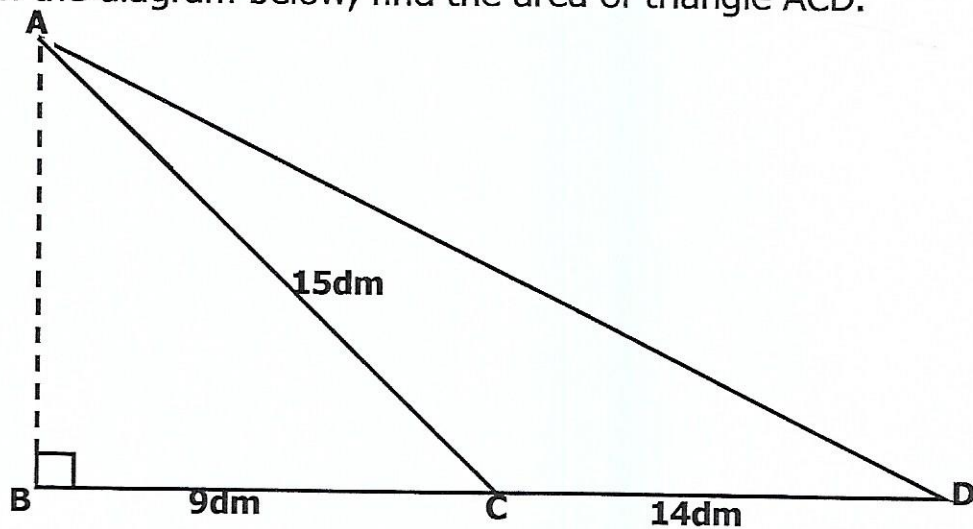
26. Study the diagram below and use it to answer the questions that follow.



a) Find the value of x .

b) Find the size of angle PRQ .

27. In the diagram below, find the area of triangle ACD .



28. A bus travelling at 80km/h took 2 hours 30 minutes to cover part of the journey, the rest of the journey was covered in $1\frac{1}{2}$ hours at a speed of 120km per hour.

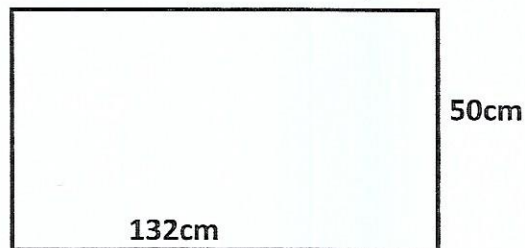
a) What distance did the bus cover altogether?

(b) Work out the average speed for the whole journey.

29. (a) Work out the amount of money that can yield sh. 72000 in a bank that gives an interest rate of 20% per year in a period of 6 months.

- b) Calculate the amount of money that will be on the account by the end of the 6 months.

30. A rectangular metallic sheet shown below has a length of 132cm and width 50cm. It was covered to form a hollow cylinder.



- a) Find the radius of the cylinder.
- b) Work out the volume of the cylinder.

31. (a) Solve the inequality
 $3 - 2x \geq 5.$

(b) Subtract $2m - p$ from $2p - m$

32. A motorist travels 80km from town X to town Y on a bearing of 240° . He then travels 65km from town Y to town Z on a bearing of 135° .

(a) Draw a sketch to show the journey of the motorist.

(b) Using a scale of 1cm to represent 10km, draw an accurate diagram to show the motorists' journey.

(c) Find the shortest distance from town x to z in km.

End
