



# Noah's Ark Independent Primary School

Subject: Mathematics	Combined external papers
Type: Mid-Year Exams	Moderator: Rwizi, A.
Date: 24 June 2021	Grade: 6- Buffalo
Marks: 72 Marks	Time: 1 hour 48 minutes

Name: \_\_\_\_\_

## Instructions

Carefully read all the questions before you start writing.

Clearly show ALL your working

Answer ALL the questions in the spaces provided.

Write neatly and legibly

## Section A: Numbers, Operations and Relationships

1 Circle the letter of the correct answer.

1.1 What is 17 499 rounded off to the nearest 1 000? (1)

A 17 500

B 18 000

C 17 000

D 18 499

1.2 Which number sentence is equivalent to  $498 + 317$ ? (1)

A  $500 + 317 + 2$

B  $500 + 300 + 17$

C  $500 + 317 - 2$

D  $500 - 317 + 2$

1.3 Three hundred thousand and two can be written in number form as: (1)

A 3 002

B 3 000 002

C 300 200

D 300 002

2. Fill in  $>$  ;  $<$  or  $=$ . (3)

2.1  $\frac{2}{3}$    $\frac{7}{9}$

2.2 0,25   $\frac{1}{4}$

2.3 30%  0,03

3. Write the following improper fractions as mixed numbers with the lowest equivalent fraction:

3.1  $\frac{28}{10}$  (2)

3.2  $\frac{20}{14}$  (2)

4. Find the factors of the following numbers. (2)

4.1 328

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5. Calculate the answers for questions 5.1 - 5.7. Use any method.  
Show your steps.

5.1  $487\,356 + 256\,103$  (2)

5.2  $512\,785 - 285\,421$  (2)

5.3  $7\,365 \div 24$  (3)

5.4  $\frac{4}{15} + \frac{3}{5}$  (2)

5.5  $34,25 + 4,5$  (2)

5.6 Write 0,95 as a percentage. (1)

5.7  $15 + (4 + 6) \times 10$  (2)

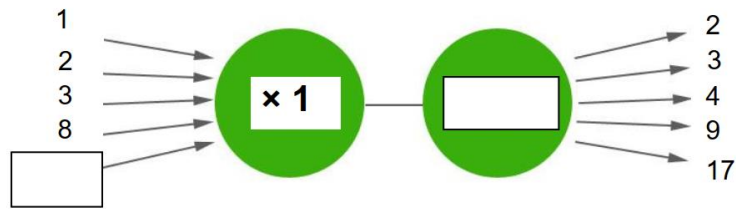
6. Tasmiya starts a business of selling ice lollies at school. It costs her R15 per box to buy the ice lollies. She sells the ice lollies for R5,50 each. There are 8 ice lollies in each box. If she sells all the ice lollies, how much profit will she make on each box? (Profit is the amount that is left after deducting your expenses) (3)

7. The sum of 2 whole numbers is 54. The difference between these 2 numbers is 12. What are the 2 numbers? (2)

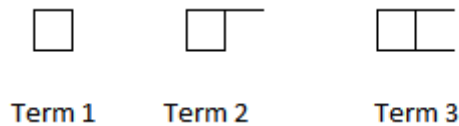
8. The sum of 3 consecutive whole numbers is 33. What are the three numbers? Clearly show your working. (3)

## Section B: Patterns, Functions and Algebra

9. Complete the flow diagram by filling in the missing number and operation. (2)



10. Look at the pattern of sticks below and draw the next two terms. (2)



11. Complete the table below for the pattern. (1)

Term number	1	2	3	4	5
Number of sticks					

12. Describe how the pattern grows. (2)

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13. Write a rule for this pattern. (1)

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14. How many sticks will there be in Term 15. (1)

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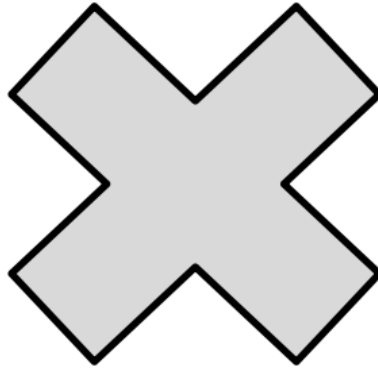
Section C: Space and Shape

15. Answer the questions about symmetry.

15.1 How many lines of symmetry does the following shape have?

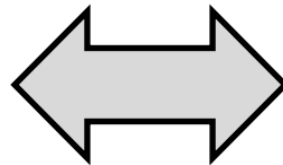
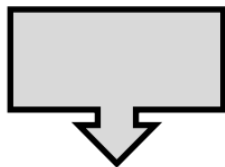
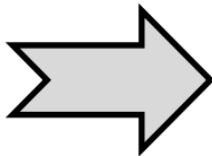
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(1)




15.2 Circle the shape that has rotational symmetry.

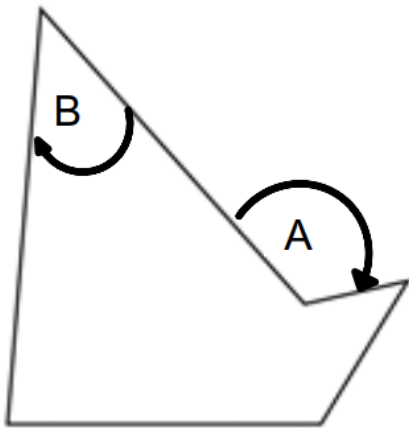
(1)



16. Complete the following table based on the picture of the 3-D object provided: (3)

	
Name of 3-D object	
Number of faces	
Number of vertices	

17. Study the shape below and name the 2-D shape. (1)



\_\_\_\_\_

18. Give one difference between a rectangle and a parallelogram. (2)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ / 8 Marks (Section C)

Section D: Measurement

19. Convert the following measurements. (3)

19.1 2 000 millilitres = \_\_\_\_\_ litres

19.2 14,2 kilolitres = \_\_\_\_\_ litres

19.3  $5\frac{3}{4}$  hours = \_\_\_\_\_ minutes

20. Answer the questions involving measurement.

20.1 Container A holds 2,8ℓ of water. Container B holds 1 500ml of water.

How much more water does container A hold compared to B? (2)

20.2 How many more years are there in 34 decades, than in 3 centuries? (3)

\_\_\_\_\_ / 8 Marks (Section D)

## Section E: Data Handling

21. Which option shows the correct mode and median for the data shown below? (1)

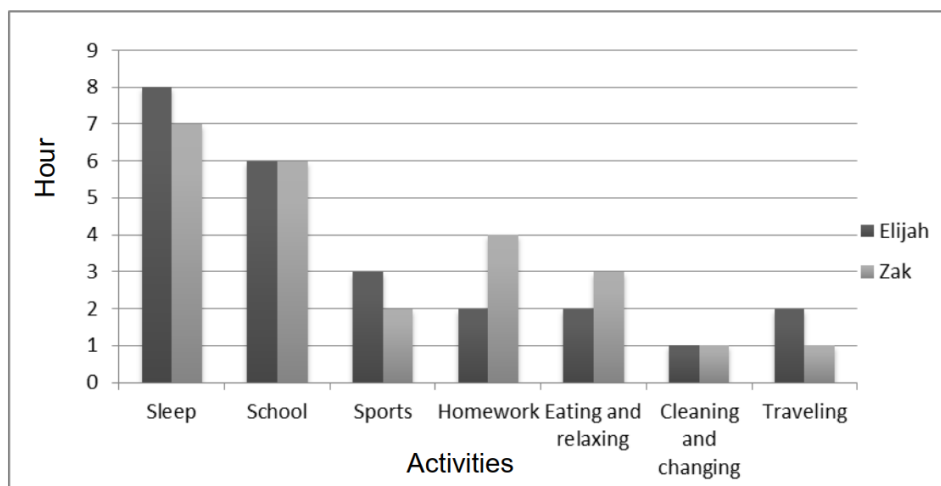
12 ; 10 ; 17 ; 15 ; 9 ; 10 ; 21 ; 15 ; 18 ; 10 ; 10 ; 12 ; 13

- A Median = 10 and Mode = 12  
B Median = 12 and Mode = 10  
C Median = 21 and Mode = 10  
D Median = 21 and Mode = 12
22. Complete the tally table below, by filling in the empty blocks. (2)

Counting the number of Maths periods per week in Grades 6 and 7		
Grade	Tally	Frequency
6		
7		9

23. Answer the questions about the graph below.

How Elijah and Zak spend their time



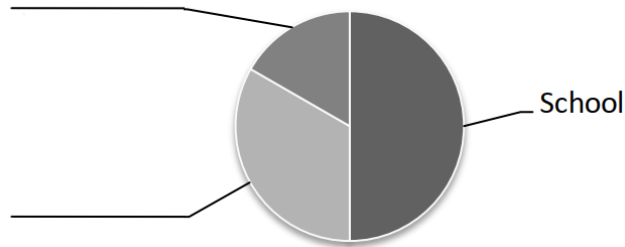
- 23.1 Who spends more time traveling? (1)

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23.2 How much time does Elijah spend altogether on sleep, school and homework? Clearly show your working. (2)

23.3 Zak draws a pie chart to compare the time he spends on school, homework and sports. Label the chart by filling in the correct activity. (2)

Time spent by Zak



\_\_\_\_ / 7 Marks (Section E)

\_\_\_\_ / 72 Marks TOTAL