

**Blouberg Ridge Primary School  
Grade 6  
Mathematics  
Paper 2  
Final Examination Paper 2019  
Marking Guidelines**

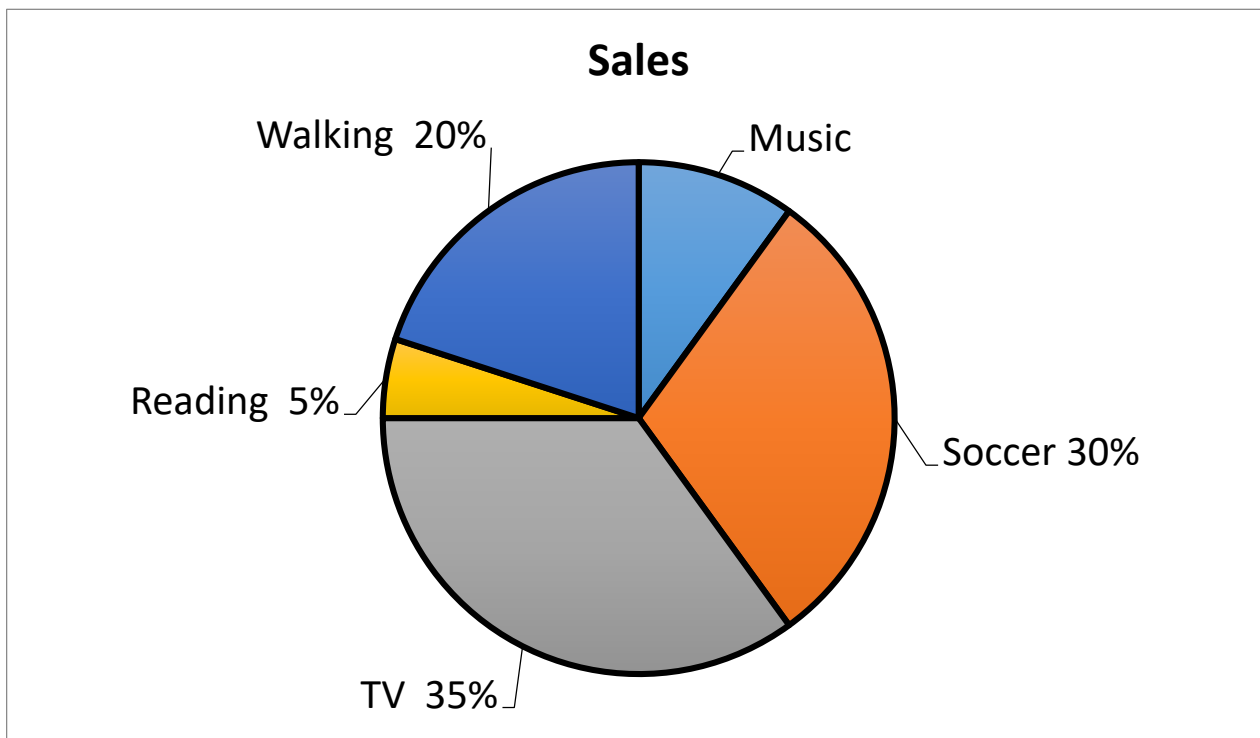
**INSTRUCTIONS:**

1. This paper consists of 7 pages
2. Show all working out.
3. Read the instructions with care and answer each question carefully.
4. It is in your own interest to write legibly and to present your work neatly.
5. No calculators may be used.
6. All answers need to be in their simplest form.

**Section A: Data Handling:**

[6]

**Question 1: The pie chart shows the after school activities of 500 Grade 6 pupils.**



1.1) What is the activity that is done the least by Grade 6 pupils after school? (1)

READING

What fraction of pupils walk after school? (Write your answer in the simplest form) (1)

$$\frac{1}{5}$$

1.2) What percentage of pupils do music after school? (1)

10%

**Question 2: Use the data below and answer the following questions.**

**12, 13, 18, 12, 18, 22, 13, 18, 10**

2.1) What is the median (show all calculations)? (2)

10,12,12,13,13,18,18,18,22 MEDIAN =13

2.2) What is the mode? 18 (1)

**Section B: Area and Perimeter.**

[7]

**Question 3.**

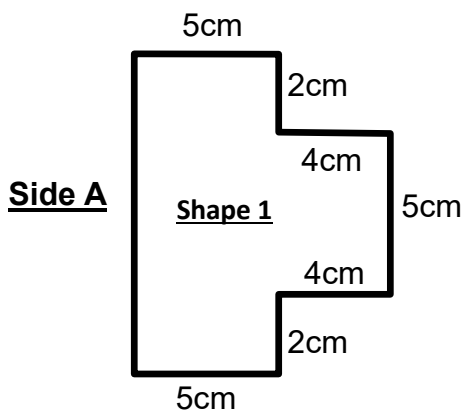
3.1) **Fill in the missing words** in the following sentences.

(2)

Area is the amount of SPACE/BLOCKS a shape covers.

Multiply the LENGTH by the width/breadth to work out the area of a rectangle **RO**

3.2) Study Shape 1 below and answer the questions that follow.



3.2.1) What is the length of the missing Side A: 9 cm ?

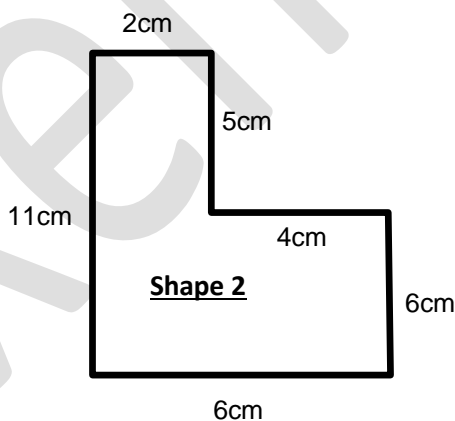
(1)

3.2.2) The perimeter of Shape 1 is 36 cm. Explain how they obtained this answer.

(1)

ADD UP ALL THE SIDES OF SHAPE 1

3.3) Study Shape 2 below and answer the questions that follow.



3.3.1) Work out the area of Shape 2 (show all calculations).

(3)

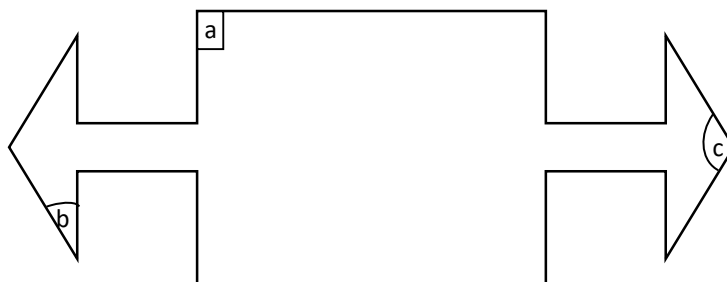
$$11 \times 2 = 22\text{CM}^2 \quad \checkmark \quad 6 \times 4 = 24 \text{CM}^2 \checkmark$$

$$22 + 24 = 46\text{CM}^2 \checkmark$$

**Section C: Angles**

[3]

**Question 4: Study the following shape and label all the angles.**

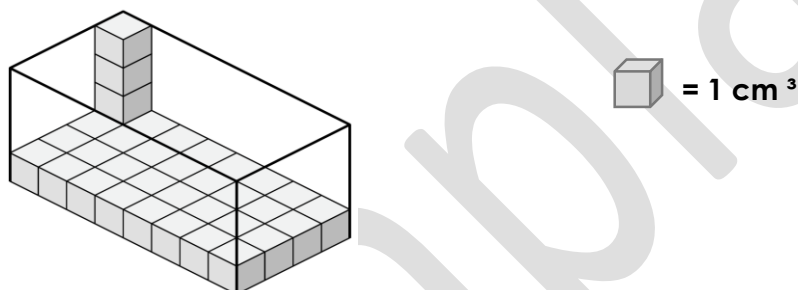


- a) RIGHT ANGLE    b) ACUTE ANGLE    c) OBTUSE ANGLE

**Section D: Volume and Capacity:**

[4]

**Question 5: Look at the following container below and answer the questions that follow.**



5.1) What is the volume of the block in this container?  $35 \text{ cm}^3$  (1)

5.2) What is the capacity of this container (Show all calculations)? (2)

$8 \times 4 \times 4 = 128 \text{ cm}^3$

5.3) How many more blocks will be needed to fill the box to capacity? (1)

93 blocks

**Section E: Views.**

**Question 6**

Look at the front, right side, left side and top view. Match each set of views with a 3D object.

**Circle the matching 3D object.** (2)

6.1)

Front View	Top View	Right Side View

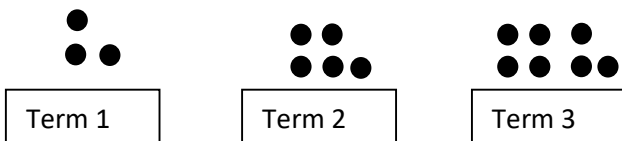
6.2)

Top View	Right Side View	Left Side View

**Section F: Patterns :**

[4]

**Question 7**



7.1) Complete the following table

RO

(1)

Shape number	1	2	3	10
Number of cubes	3	5	7	<u>21</u>

7.2) Write a general rule for this pattern.  $X^2+1$

KQ

(1)

7.3) John has **10 apples** and applied the following rule to get an answer: 10 apples  $\times 5 - 2 = 48$ . Sue has **B** amount of apples and applied the same rule but got an answer of 98. How many apples does Sue have? Show all your working out.

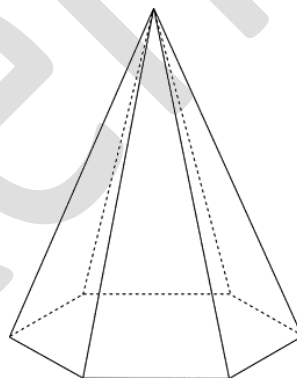
(2)

      $98 + 2 = 100 \sqrt{\quad}$        $100 \div 5 = 20 \sqrt{\quad}$  apples.

**Section G: 3D Objects.**

[2]

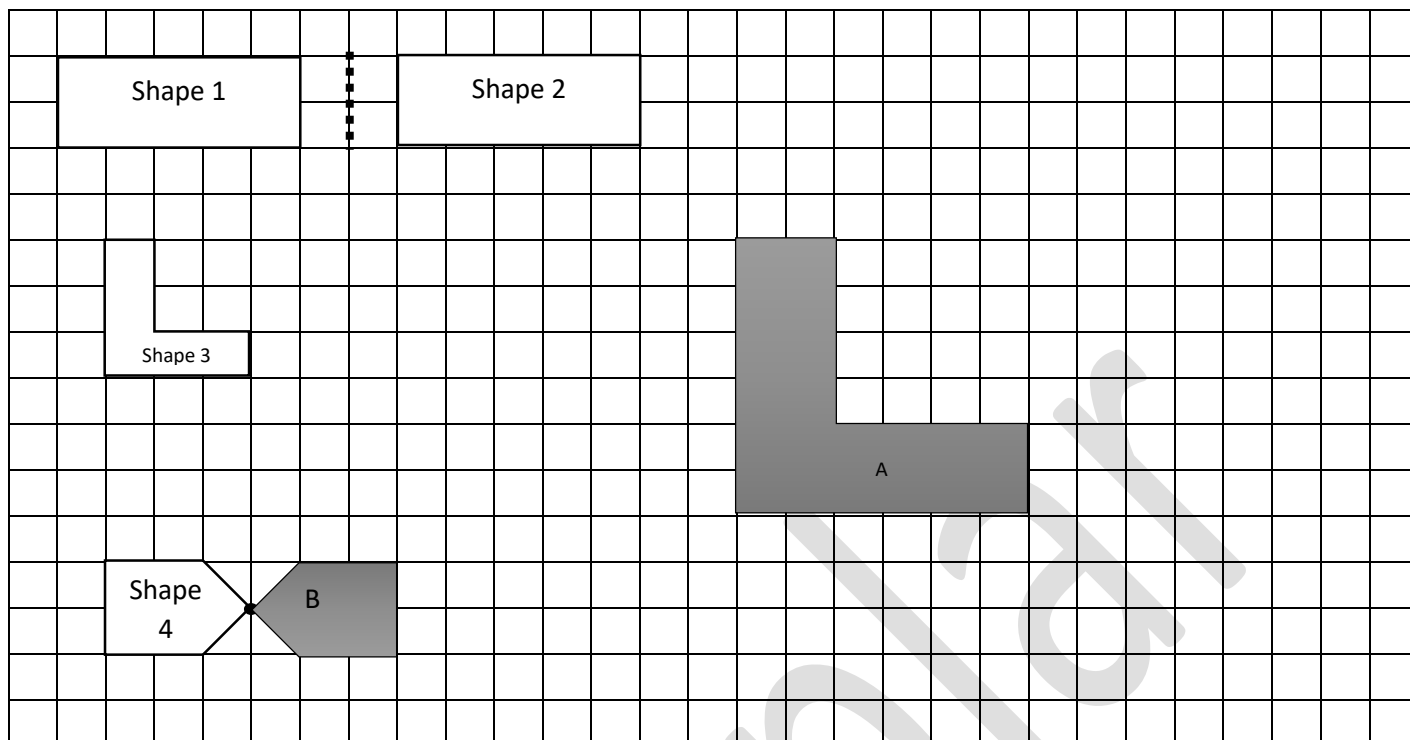
**Question 8. Study the image of a pyramid and complete the table below.**



<u>Name of the object</u>	<u>Number of Edges</u>	<u>Number of Vertices</u>	<u>Number of Faces</u>
Hexagonal Pyramid	<u>    12    </u>	<u>    7    </u>	7

**Section H: Transformations:**

**[3]**



**Question 9.**

8.1) What transformation is taking place from Shape 1 to Shape 2? REFLECTION

8.2) Draw an enlargement X2 the size of Shape 3 on the grid paper and **label it A.**

8.3) Rotate Shape 4  $\frac{1}{2}$  a turn to the right, **draw and label it B.**

**Section I: Word Problems**

**[9]**

**Question 10: Use the RNWA method to answer the following word problems.**

101) Mrs Coertzen carried 750g of tomatoes; 3,5 kg of cabbage and  $25\frac{1}{4}$  kg of potatoes to her car. What is the total weight she carried to her car? **(3)**

R:

N:  $750\text{g} + 3500\text{g} + 25\ 250\text{g} = A\sqrt{\text{---}}$  or  $\frac{3}{4} + 3\frac{1}{2}\text{kg} + 25\frac{1}{4}\text{kg} = A\sqrt{\text{---}}$  ( $\sqrt{\text{conversion correct}}$ )

W:  $25\ 250$  or  $\frac{3}{4} + 3\frac{2}{4}\text{kg} + 25\frac{1}{4}\text{kg}$   
 $+ 3\ 500$   $28\frac{6}{4}$   
 $750\ 29$   $\frac{2}{4}\text{kg}$   
 $29\ 500\text{ kg}$

A: 29500 g or  $29\frac{1}{2}$  kg ✓

10.2) Riley is busy running a 40km marathon. He is running at 5,5 km per hour.

a) How far has Riley run in kilometres if he has been running for 240 minutes? **(3)**

R:

N:  $(240 \div 60) \times 5,5\text{km} = \mathbf{B}$  ✓

W:  $240 \div 60 = 4$  ✓

$4 \times 5,5 = 22 \text{ km}$

A: 22 km ✓

b) If he completes  $\frac{3}{4}$  of the race how many kilometres has he run thus far? **(3)**

R:

N:  $\frac{3}{4}$  of 40km = C ✓

W:  $40 \div 4 = 10$  ✓

$10 \times 3 = 30\text{km}$

A: 30km