



# Noah's Ark Independent Primary School

Subject: Mathematics	Examiner: Rwizi, A.
Type: Summative Assessment	Moderator: Böhmer, M.A.
Date: 6 October 2020	Grade: 7
Marks: 50 Marks	Time: 1 hour 15 minutes

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

## Instructions:

Carefully read ALL the questions before answering.

Answer ALL the questions.

Write legibly and present your work neatly.

Show ALL your working where applicable.

## Section A: Numbers, Operations and Relationships

### Question 1

1.1 What is the value of the underlined digit in  $210,8\underline{1}3$ ? (1)

a. 1      b. 0,001      c. 0,01      d. 0,1

1.2 Round off  $5\ 361,86\underline{4}$  to the nearest tenth: \_\_\_\_\_ (1)

1.3 Write the next term in the number sequence below. (1)

$\frac{3}{4}$ ; 1;  $1\frac{1}{4}$ ; \_\_\_\_\_

1.4 What is half of half? \_\_\_\_\_ (1)

1.5 Complete the table below: (1)

Decimal Fraction	Common Fraction	Percentages
0,25		

## Question 2

Compare the following by placing the correct relationship sign  $<$ ,  $>$ , or  $=$  in the box. (2)

$$2.1 \quad \frac{1}{2} \quad \square \quad \frac{15}{30}$$

$$2.2 \quad -24 \div -6 \quad \square \quad -10 + 6$$

## Question 3

Calculate the following: Leave your answer in the simplest form, where possible.

$$3.1 \quad \frac{1^2}{3} - \frac{3}{10}$$

(2)

$$3.2 \quad 4\frac{2}{3} \times 1\frac{1}{2}$$

(2)

$$3.3 \quad 3,26 \times 2,1$$

(2)

Question 4

4.1 The minimum temperature was  $-5^{\circ}\text{C}$  on Wednesday. On Thursday the minimum temperature was  $6^{\circ}\text{C}$  less. What is the minimum temperature on Thursday? Clearly show your working. (2)

4.2 Arrange these numbers in ascending order. (1)

0 ; -6 ; -17 ; 77 ; -35 ; -8

\_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_

4.3 Brandon spent  $\frac{1}{4}$  of his week's pocket money on Monday and  $\frac{1}{12}$  of it on Tuesday. What fraction of his pocket money did he have for the rest of the week? Clearly show your working. (2)

\_\_\_\_\_ / 18 Marks (Section A)

Section B: Patterns, Functions and Algebra

Question 5

5.1 Write down the variable and coefficient of the algebraic expression below. (2)

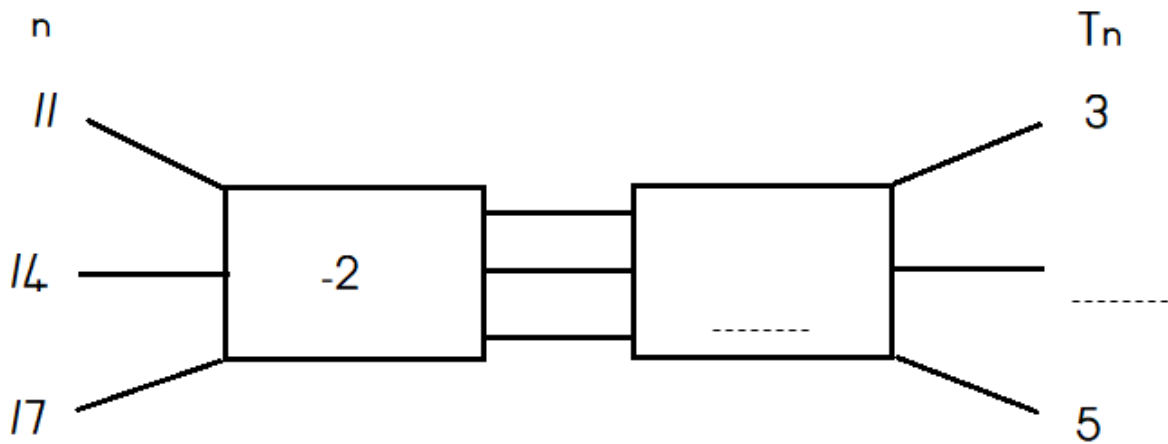
$$\frac{x}{3}$$

a) variable: \_\_\_\_\_

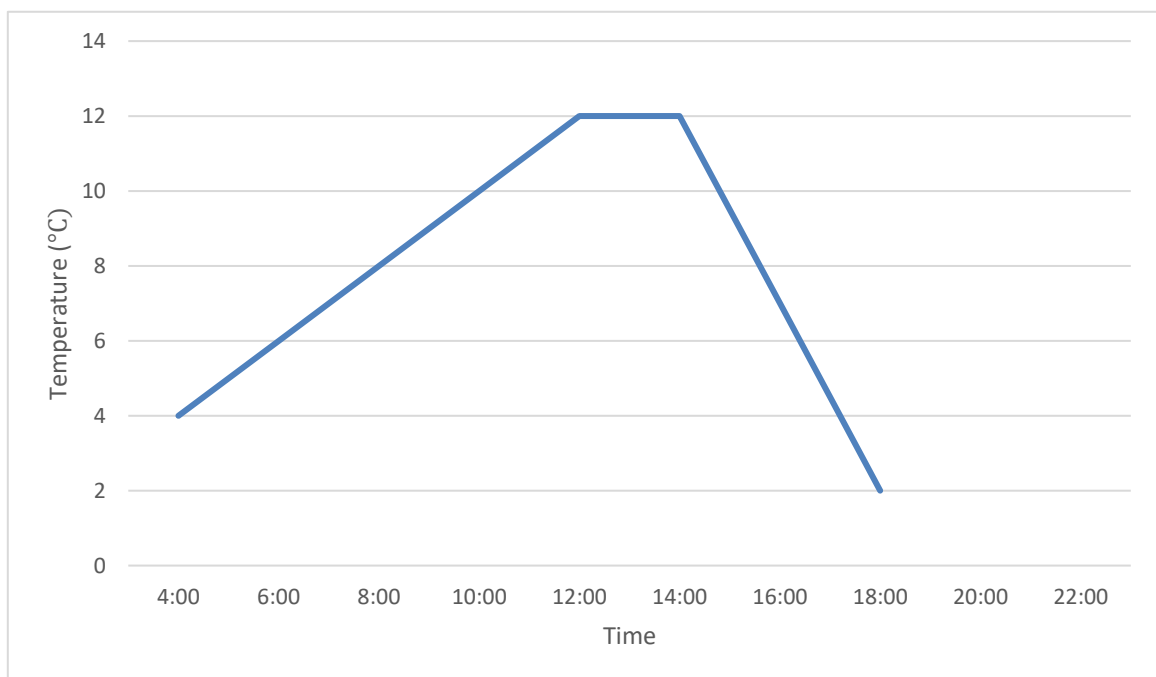
b) coefficient: \_\_\_\_\_

5.2 Complete the spidergram below:

(2)



5.3 The graph below shows how the temperature changed during a winter's day in a certain place. Study the graph and answer the questions that follow:



a) What was the temperature at 04:00 that morning? (1)

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b) What was the highest temperature that day? (1)

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- c) Determine the temperature range. Clearly show your working. (2)

Question 6

Calculate the value of the variables that make these number sentences true.

<p>b.1 <math>\frac{1}{3}a = 45</math></p> <p style="text-align: right;">(2)</p>	<p>b.2 <math>3b - \sqrt[3]{64} = 1</math></p> <p style="text-align: right;">(3)</p>
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Question 7

- 7.1 A school has 72 Grade 7 learners. The mathematics teacher divided the learners into 9 teams to play soccer on the field. How many learners are in each team? Clearly show your working. (1)

7.2 If  $x$  is subtracted from 2 and the answer is divided by 3 the result is 2. Determine the value of  $x$ . (2)

---- / 16 Marks (Section B)

Section C: Measurement

Question 8

8.1 Complete the following table. (3)

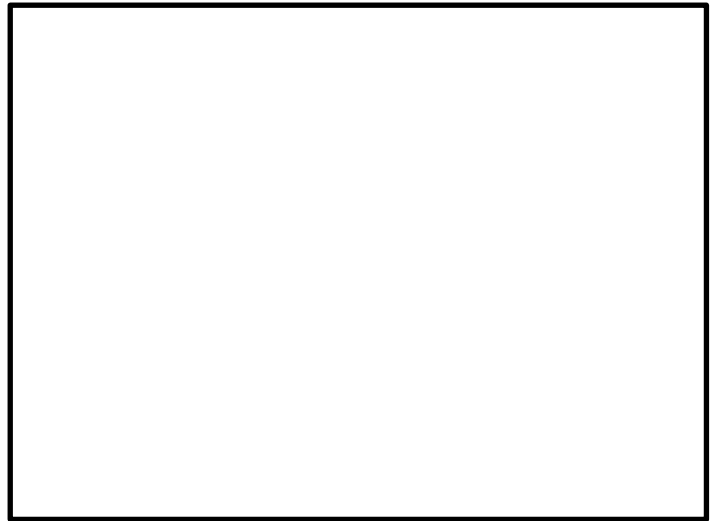
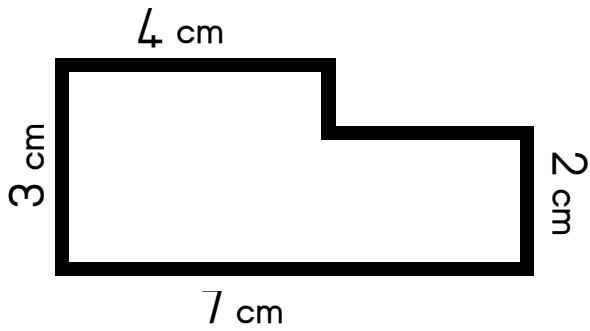
	Formula	Standard Units
Area of a triangle		
Volume of a cube		
Perimeter of a square		

8.2 What is capacity? (1)

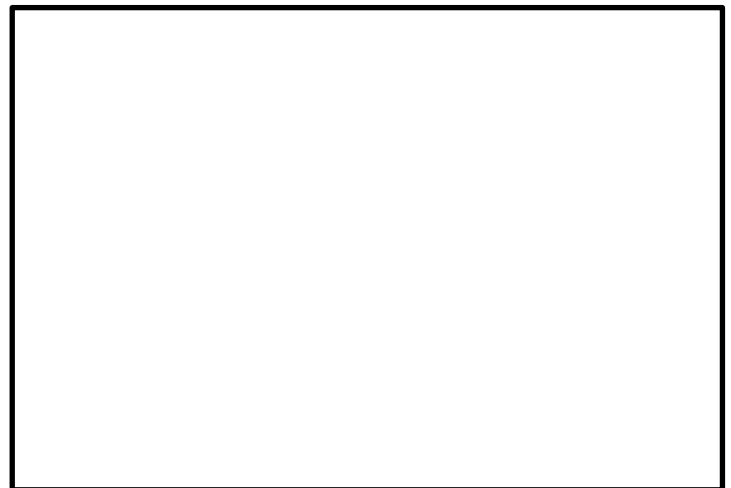
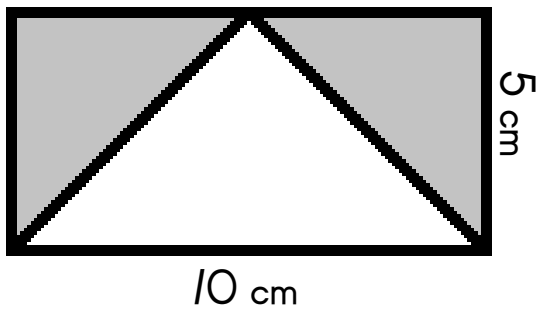
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8.3 Calculate the surface area of a cube where the length of the side is  $\sqrt{25\text{cm}^2}$ . (2)

8.4 Calculate the perimeter of the shape below. (2)



8.5 Calculate the area of the shaded part of the composite shape below. (3)



8.6 Mr Rwizi is filling a water drum with a capacity of 15 000 cm<sup>3</sup>. He has a jug with a capacity of 500 ml. How many jugs of water will he need to fill the drum? (3)



8.7 The volume of a cube is  $125 \text{ cm}^3$ , Calculate the length of the sides. (2)



\_\_\_\_\_ / 16 Marks (Section C)

\_\_\_\_\_ / 48 Marks TOTAL