



TISITENI COMBINED SCHOOL
TERM 1 2026

GRADE 8

MATHEMATICS

MARKS: 50

EXAMINER : GEMBE MC

MODERATOR: _____

NAME : _____

1 hour



TIME:

Instructions:

- Answer all the questions and show all your calculations.
- Number your questions as on the question paper.
- No calculators may be used

Question 1

Choose the correct answer and write down the correct letter next to the question number.

1.1 Which of the following numbers are irrational numbers? (2)

- A. 0,8
- B. 0,5
- C. $-\sqrt{3}$
- D. $\sqrt{2\frac{1}{4}}$

1.2 Write the ratio $1\frac{2}{3} : 2\frac{2}{3}$ in its simplest form. (2)

- A. 1 : 2
- B. 5 : 8
- C. 8 : 1
- D. 2 : 3

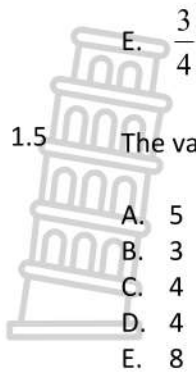
1.3 The value of $\sqrt{\frac{1600}{0,1 \times 0,1}}$ is ...

- A. 0,4
- B. 4
- C. 40
- D. 400
- E. 4000



1.4 $\frac{1}{3} \times \frac{1}{2} \div \frac{1}{3}$ is equal to:

- A. $\frac{1}{2}$
- B. 1
- C. 2
- D. $\frac{1}{4}$



- E. $\frac{3}{4}$ (2)
- 1.5 The values of $\sqrt[3]{73 - (-3)^2}$ is...
- A. 5
B. 3
C. 4
D. 4
E. 8 (2)

[10]

Question 2

$$\sqrt{3} ; -\frac{1}{3} ; \sqrt[3]{-8} ; \sqrt{9} ; \frac{0}{5} ; \frac{\pi}{0} ; \frac{\pi}{8} ; \sqrt{-4} ; 3,6 ; \frac{22}{7}$$

From the above list write down all the:

- 2.1.1 Whole numbers (2)
- 2.1.2 Integers (2)
- 2.1.3 Irrational numbers (show all your steps) (2)
- 2.1.4 Non Real numbers (2)
- 2.2 Simplify without the use of a calculator.
- 2.2.1 $(-1,2)^2 + 0,2^3$ (3)
- 2.2.1 $2,9 - 0,08 \div 0,2 + 1,3$ (2)
- 2.2.3 $-20 \times 5 - (-22) + (-3)$ (4)
- 2.2.4 $-\sqrt{\frac{4}{9}} \times \sqrt[3]{\frac{27}{125}}$ (3)
- [20]



Question 3

- 3.1 A bus driver covers a certain distance in three hours at an average speed of 80km/h. Calculate the distance the bus has travelled. (3)
- 3.2 Calculate the interest that was earned on an investment of R 3000 that was invested for three years, at a simple interest rate of 7,5% per annum. (3)
- 3.3 The cost price of an item is R250.

- 3.3.1 Calculate the VAT on this item (2)
- 3.3.2 Determine the selling price of this item if the profit is R75. (2)
- 3.4 There are 240 children at a party. The ratio of the number of boys to the number of girls at the party is 3 : 1 . How many boys are at the party? (3)
- [13]

Question 4

- 4.1 Write down the next two terms in the given sequence 5 ; 9 ; 13 (2)
- 4.2 Describe the pattern in question 4.1 in words. (1)
- 4.3 Find the general term of the sequence in question 4.1 in the form $T_n = \dots$ (2)
- 4.4 Which term in the sequence is equal to 37? (2)

[7]
Total [50]



Memo Gr 8 first term		
1.1	C	(2)
1.2	B	(2)
1.3	D	(2)
1.4	A	(2)
1.5	C	(2)
2.1.1	$\sqrt{9} ; \frac{0}{5} \checkmark \checkmark$	(2)
2.1.2	$\sqrt[3]{-8} ; \sqrt{9} \checkmark \checkmark$	(2)
2.1.3	$\sqrt{3} ; \frac{\pi}{8} \checkmark \checkmark$	(2)
2.1.4	$\frac{\pi}{0} ; \sqrt{-4}$	(2)
2.2.1	$(-1,2)^2 + 0,2^3$ $= 1,44 + 0,008 \checkmark \checkmark$ $= 1,448 \checkmark$ Answer only, 1 mark	(3)
2.2.2	$2,9 - 0,08 \div 0,2 + 1,3$ $= 2,9 - 0,4 + 1,3$ $\checkmark$ $= 3,8 \checkmark$ Answer only, 1 mark	(2)
2.2.3	$-20 \times 5 - (-22) + (-3)$ $= -100 + 22 - 3 \checkmark \checkmark \checkmark$ $= -81 \checkmark$ Answer only, 1 mark	(4)
2.2.4	$-\sqrt{\frac{4}{9}} \times \sqrt[3]{\frac{27}{125}}$ $= -\frac{2}{3} \times \frac{3}{5} \checkmark \checkmark$ $= -\frac{2}{5} \checkmark$ Answer only, 1 mark	(3)
3.1	<i>distance = speed $\times$ time $\checkmark$</i> $= 80 \text{ km/h} \times 3 \text{ hours} \checkmark$ $= 240 \text{ km} \checkmark$	(3)
3.2	$SI = PIN$	

	$= \frac{3000 \times 7,5 \times 3}{100} \checkmark \checkmark$ $= R\ 675 \checkmark$	(3)
3.3.1	$\frac{14}{100} \times R250 \checkmark$ $= R35 \checkmark$	(2)
3.3.2	$\text{Selling Price} = R250 + R75 \checkmark$ $= R325,00 \checkmark$	(2)
3.4	$3 + 1 = 4 \checkmark$ $\text{Boys} = \frac{3}{4} \times 240 \checkmark$ $= 180 \checkmark$	(3)
4.1	$17 ; 21 \checkmark \checkmark$	(2)
4.2	Add to each consecutive term. $\checkmark$	(1)
4.3	$T_n = 4n + 5 \checkmark \checkmark$	(2)
4.4	$37 = 4n + 5 \checkmark$ $4n = 32$ $n = 8 \checkmark$	(2)

