



eduresourcza.com



education

MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

GENERAL EDUCATION AND TRAINING

MATHEMATICS GRADE 9 ASSIGNMENT 1 FEBRUARY 2023

MARKS : 50

DATE : _____

Number of pages: 4 including cover page

INSTRUCTIONS AND INFORMATION

1. Answer all the questions on folio paper and number your answers according to the numbering system in the question paper.
2. Show ALL calculations clearly.
3. Round off ALL answer to TWO decimal places unless stated differently.
4. Show all units where applicable.
5. Write neatly and legibly.
6. Leave a line open between each sum.

Question 1

1.1. Given: $\sqrt{9+25}$; $\pi - 4$; $\sqrt[3]{-27}$; $\frac{2}{3}$; $\frac{18}{2}$; $\sqrt{-27}$

From the list given above, write down:

- 1.1.1. A natural number. (1)
- 1.1.2. A negative irrational number. (1)
- 1.1.3. A non-real number. (1)
- 1.1.4. A rational number which is not an integer. (1)

1.2. Between which two consecutive integers does $\sqrt{138}$ lie? (3)

1.3. Rewrite 0,2Ċ as a proper fraction (in the form of $\frac{a}{b}$), show all steps. (4)

[11]

Question 2

2.1. Rewrite 92 and 146 as products of their prime factors. (2)

2.2. Write down the LCM and HCF of 92 and 146. (2)

2.3. Divide 240g in the ratio 5 : 3 : 4. (3)

2.4. Thoriso can either walk to school at 5 km/h or ride her bicycle at 15 km/h.
If she rides her bicycle, it takes her 10 minutes to get to school.

2.4.1. How long will it take her if she walks to school? (2)

2.4.2. Is this direct or indirect proportion? Give a reason for your answer. (2)

2.5. Brian wants to exchange South-African rand for British pound.
If R1 is worth 0,075199 pound, how many pounds will he get for R2 100
if he must pay an agent commission of 1,5%? (3)

2.7. The price of petrol is increased from R12,58 per litre to R13,28 per litre.
Determine the percentage increase in the price. (2)

2.8. A motor car drives at an average speed of 106 km/h for 2 hours 45 minutes.
At which constant speed must the car drive to travel the same distance in
2 hours 35 minutes? (4)

[20]

Question 3

Read the letter below and answer all the questions that follows.

Bank of South Africa

Theo Mnisi
P. O. Box 472
Bushbuckridge Local Municipality
Thulamahashe
1365



Dear Mrs Mnisi

*We know it is important to you to manage your finances responsibly.
Here's an offer you would want to use.*

R9 000,00

Cash already approved

YOUR LOAN OFFER

AMOUNT ALREADY APPROVED R 9 000,00

- **Payable over 48 months**
- **Monthly instalments = R 318,92**

EXPIRY DATE: 28 February 2023

- 3.1. Calculate the **TOTAL** amount that Theo has to payback if she takes the loan. (2)
- 3.2. Why, do you think, do banks and other financial institutions offer cash loans to people that did not apply for it? (1)
- 3.3. Theo decides to take the loan and wants to invest the money in either of the following options.
 - Option 1:** The R9 000 invested at 8% p.a. simple interest for 3 years.
 - Option 2:** The R9 000 invested at 7% p.a. compound interest for 3 years.
- 3.3.1. Which of the two options will be better? Show all calculations. (7)
- 3.3.2. Why is the option chosen in 3.3.1. a better option? (1)

[11]

Question 4

Simplify the following without using a calculator.

4.1. $1\frac{2}{3} : 2\frac{2}{3}$ (2)

4.2. $2(\sqrt[3]{64} + \sqrt{25})$ (2)

4.3. $(3,6 \times 10^6) - (5,2 \times 10^5)$ (2)

4.4. $\frac{1}{2} + 2\frac{3}{4} - \frac{3}{8}$ (2)

[8]

GRAND TOTAL: 50