



Hillcrest High School

Grade 10

MATHEMATICAL LITERACY P1 NOVEMBER 2023

MARKS: 75

TIME: 1½ Hours

EXAMINER: Mrs J. Leuschke

MODERATOR: Mrs A. Jugmohan

Instructions:

Read the following instructions carefully before answering the questions.

1. This question paper consists of 3 questions. Answer ALL the questions.
2. Write your name and **your Mathematical Literacy teacher**'s name on your answer booklet.
3. Clearly show ALL calculations, diagrams, graphs, etc which you have used to determine your answers.
4. Answers only will NOT necessarily be awarded full marks.
5. An approved scientific calculator (non-programmable) may be used, unless otherwise stated.
6. If necessary, answers should be rounded off to TWO decimal places, unless otherwise stated.
7. Number the answers EXACTLY as the questions are numbered.
8. Diagrams are not necessarily drawn to scale.

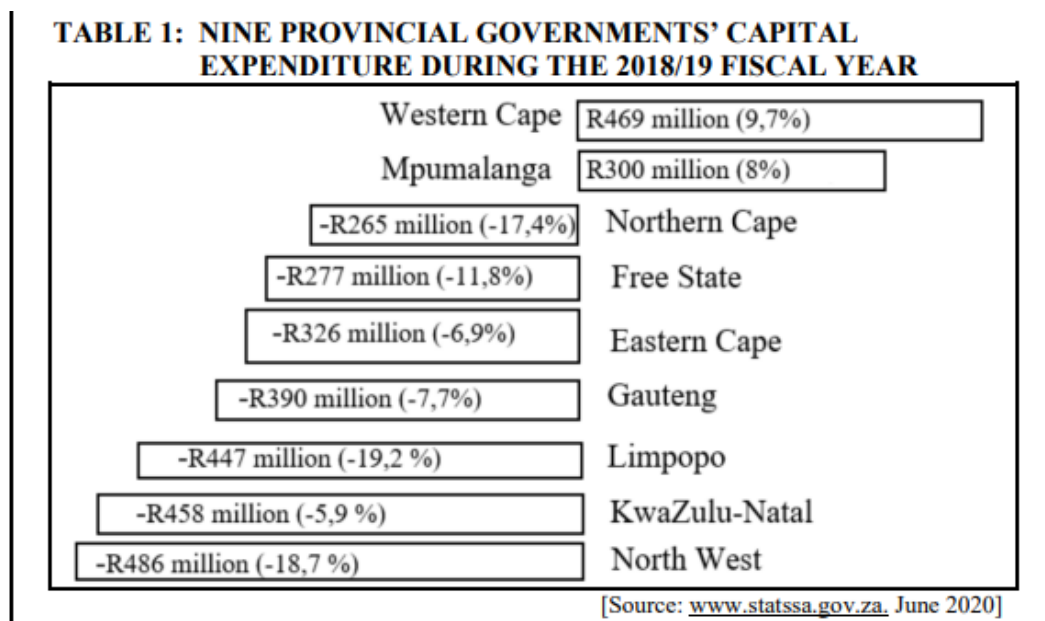
QUESTION 1

1.1 An item which costs R380 was reduced by 18,25% for Black Friday sales on 26 November 2021.

1.1.1 Write 18,25% as a common fraction in its simplest form. (2)

1.1.2 Calculate the price after the reduction. (3)

1.2 Infrastructure spending by nine provincial governments during the 2018/19 fiscal year shows an overall reduction in capital expenditure. TABLE 1 below shows the details.



Use the information to answer the questions that follow.

1.2.1 Name the province with the highest percentage decrease. (2)

1.2.2 Name the province with the smallest percentage decrease. (2)

1.2.3 Calculate the difference between the province with the highest percentage decrease and the province with the smallest percentage decrease. (3)

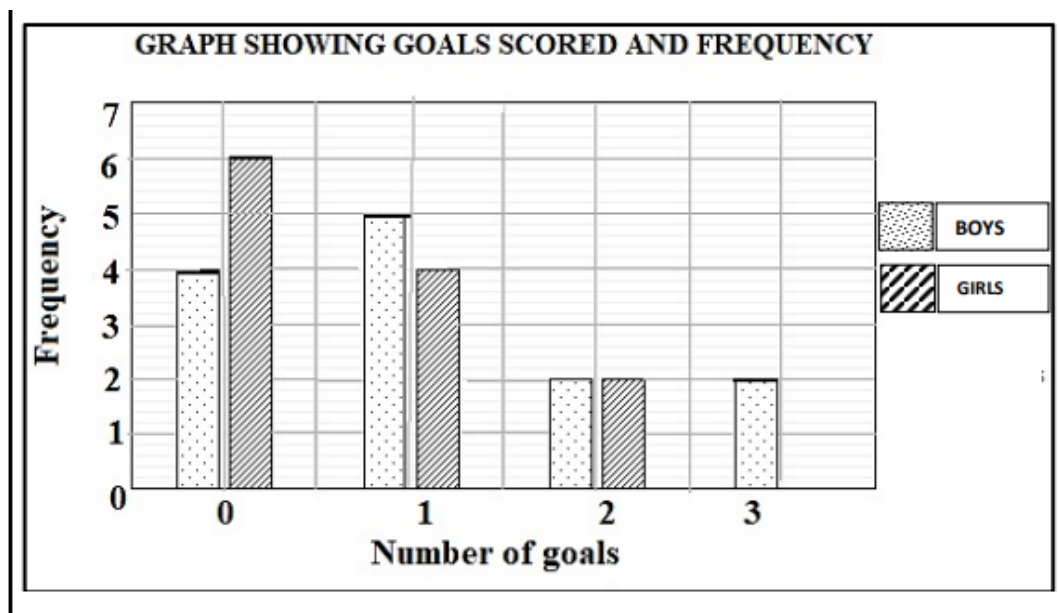
1.3 Mr Boss works at the car-washing site He is contracted to wash cars at a normal rate of R25 per hour. He gets paid $1\frac{1}{2}$ times his normal wage on weekends for the hours he works.

Use the information to answer the questions that follow.

1.3.1 Calculate the wage per hour Mr Boss earns on weekends. (2)

1.3.2 Mr Boss worked for 6 hours on Saturday and 4 hours on Sunday. Calculate the money he earned for these two days. (3)

1.4 In the last soccer season, the first teams at Gunni High School for boys and girls, scored several goals in the games they played. The information is displayed in the graph below.



Use the above information to answer the questions that follow.

1.4.1 Is the data discrete or continuous? (2)

1.4.2 In how many games did the girls score one goal? (2)

1.4.3 Determine the total number of games played by the two teams in the soccer season. (2)

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QUESTION 2

2.1 Study the advertisement below and answer the questions which follow:

The advertisement is for 'The Golfers Club' and features several items with their original and sale prices:

- Cobra 400SZ TITANIUM:** Features 'Final close-out' and '2004 Hot-face' text. Price: **R 1300** (Normally R 6000).
- Cleveland GOLF CG4 IRONS:** Features '2005 Model' text. Price: **R 5000** (Normally R 6000).
- TOUR LEGEND STAND:** Price: **R 300** (Normally R 700).
- NDS GRAPHITE IRONS:** Price: **R 3000** (Normally R 4 300).

The central logo for 'The Golfers Club' includes the tagline 'Golf Equipment is our Business'. There are also several circular promotional graphics: 'GREAT OFFER' (flame), 'GREAT OFFER' (golf ball), 'GREAT LOW PRICE' (wheel), and 'PRICE THUMPER' (hand).

2.1.1 Which item is not “on sale”? (2)

2.1.2 The price of one TOUR LEGEND STAND was R700 and is now R300. In what ratio did the price decrease? (simplest form) (2)

2.1.3 The current exchange rate for the American dollar to rand is 1 dollar = 19,5 rands. If you want to buy three NDS GRAPHITE IRONS and one CG4 IRON, how much will it cost in dollars? (3)

2.1.4 The price of the 400SZ TITANIUM decreased in the ratio of 5:2. Your friend states that you will now be paying R600. Verify, showing all calculations, whether or not your friend is correct. (3)

2.2 Use the information below to answer the questions that follow.

24x optical zoom **800x digital zoom**
2.5" LCD

SAMSUNG

DIGITAL VIDEO CAMERA (VP-D351)
 • Mini-DV • Digital image stabilizer
 • 800K Pixel CCD, 2.5" 112K Pixel LCD Monitor
 • BW Viewfinder • Digital Stereo Audio
 • Power Nite Pix • IEEE 1394 Out
 • 12 Month guarantee

SAVE R700
R2999
R156 X 18 MTH - DEP. R600

SAVE R700
R2999
R156 X 18 MTH - DEP. R600

2.2.1 If you choose the option of paying for the camera over 18 months, how much will it eventually cost you? (3)

2.2.2 Would it be better to buy the video camera for cash or using Hire Purchase? Give a reason for your answer. (2)

2.2.3 If you buy a spare battery for your camera, the company offers you a further 5% discount on the cash price of the camera. Calculate the new cash price. (3)

2.3 Andy used 32,3Kl of water. Using the tariff structure below, calculate how much he needs to pay the municipality (including VAT). (6)

	Price per Kl (Excl. VAT)
0 – 9Kl	R9,50
9 – 25Kl	R11,22
25 – 30Kl	R14,95
30 – 45Kl	R23,05
More than 45Kl	R25,36

2.4 The cost of mailing a package to England depends on the mass (in kilograms) of the package. The Post Office uses the following graph to calculate these costs:



[The graph sheet is printed in your answer book.]

Use your graph to answer the following questions. (Indicate clearly on your graph how you determined the answers)

2.4.1 Determine the cost of mailing a camera, if the mass of the camera is 2kg (2)

2.4.2. You spend R135 on postage. Determine the mass of the package. (3)

2.4.3. Andy states that this graph is an example of direct proportion. Verify whether or not this is correct and substantiate your answer giving TWO reasons. (3)

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QUESTION 3

The income from accommodation from 2018 to 2020 is shown below. It excludes restaurant sales, bar sales and ‘other’ income. Study the information in the table below and answer the questions that follow.

**TABLE 3: INCOME FROM ACCOMMODATION AT CURRENT PRICES
(R MILLION)**

Month	2018	2019	2020
January	2 166,9	2 093,5	2 191,5
February	2 161,1	2 092,8	2 262,3
March	2 244,9	2 249,4	1 311,7
April	1 936,2	1 988,8	40,3
May	1 698,1	1 750,5	33,8
June	1 683,0	C	105,3
July	1 911,5	1 964,7	177,5
August	1 974,3	2 067,1	362,5
September	2 052,5	2 204,4	590,7
October	2 267,8	2 308,0	774,4
November	2 282,4	2 267,8	767,6
December	2 467,7	2 493,4	1 200,9
TOTAL	24 846,4	25 285,1	9 818,5

3.1 Write down the year that recorded the least amount of income from accommodation. Give a reason for your answer. (2)

3.2 Calculate the value of C. (3)

3.3 Arrange the income from accommodation for 2019 in descending order. (2)

3.4 Calculate the range for 2020. (3)

3.5 The mean income for 2018 is more than double the mean income for 2020. Verify, showing all calculations, whether or not this is true. (6)

3.6 Explain the trend in December’s income. (3)

3.7 Name the months in 2019 where the income was less than R1 900 000 000. (2)

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