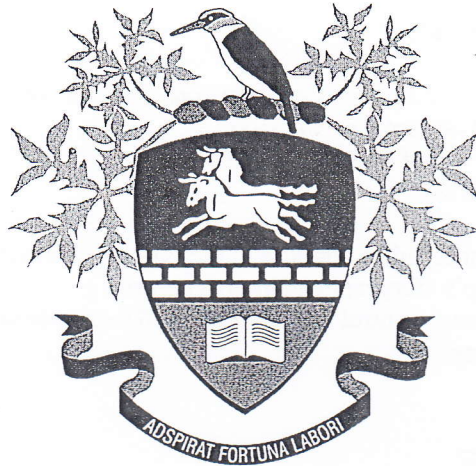


Grade 10
Mathematics Literacy Exam
Paper 1

November:2012
Time: 90min

Marks 80
Examiner: Mr Hopkins



Instructions

- 1) Answer all the questions in the order that they appear on the question paper.
- 2) Write your teachers name on your question paper.
- 3) A calculator may be used unless otherwise stated.
- 4) All final answers must be rounded off to two decimal places.
- 5) Write neatly, what cannot be read will not be marked.

Question 1: Calculator Work

1.1 John is a rugby player who weighs 62kg's. His coach tells him that he needs to increase his weight by 10%.

What does his coach want him to weigh? (2)

1.2 A music shop has a special on Yamaha keyboards. There is a 20% off special on keyboards that normally cost R2500.

What is the cost on special? (2)

1.3 Phillip obtained the following marks in his last three control tests

- English 34 out of a total of 50 marks
- Geography 16 out of a total of 20 marks
- Life Science 70%

1.3.1 How many marks did Phillip lose in the English control test? (2)

1.3.2 Convert Phillip's Geography mark to a percentage. (2)

1.3.3 If the Life Science control test was out of 80 marks, how many marks did Phillip score? (2)

1.4 Solve the following

$$387 + 14 \times 3 \left(\frac{2}{4} \right) - \sqrt{6} \quad (1)$$

Total (11)

Question 2: Ratio

2.1) Simplify 450:25 (2)

2.2) Write 34:204 as a ratio of 1:_ (2)

2.3) R700 000 is inherited by 3 brothers, Bob, James and Luke in a ratio of 3:5:6 respectively. How much does each brother get? (3)

Total (7)

Question 3: Finance

Simple Interest $A=P(1+in)$
Compound Interest $A=P(1+i)^n$

3.1) Tayla invests R101004 for 6 years at an interest rate of 8% simple interest.

3.1.1 How much does she have at the end of her investment? (3)

3.1.2 How much interest did she make? (2)

3.2) Calleigh buys a motor bike for R156 221. She pays it off over 5 years at a rate of 4% compound interest.

- 3.2.1 What is the total amount she pays back to the bank? (3)
 3.2.2 How much interest did she pay? (2)
 3.2.3 What are her monthly instalments? (2)

Total (12)

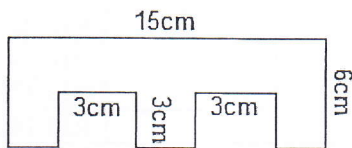
Question 4: Space and Shapes

Work out the area of the following shapes

Use the follow formulas to help you:

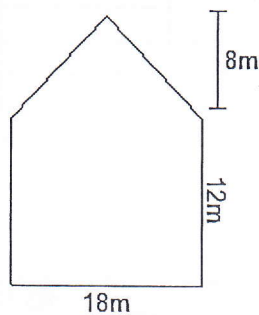
$$A=L \times B \qquad A= \frac{1}{2} B \times H \qquad V= \frac{1}{2} B \times H \times L \qquad V= L \times B \times H$$

4.1



(3)

4.2 Work out the area of the following shape.



(4)

4.3 A cuboid fish tank has a breath of 50cm and length 90cm.

If the water is to a depth of 40cm, find

- a. The volume of the water in cm^3 . (3)
 b. The volume of the water in litres. (2)

4.4 A chocolate company wish to make a solid bar of chocolate in the shape of a triangular prism. The triangle is to have a base of 10cm and a height 6cm. The length of the bar is to be 30cm. Find

- a The volume of the chocolate, in cm^3 (3)
 b The volume of the chocolate, in litres. (2)

Total (17)

Question 5: Banking

Define the following terms fully

- 5.1.1) Fixed deposit (2)
 5.1.2) Credit account (2)
 5.1.3) EFT (2)

5.2) Refer to the following account of Sam Jones to complete the questions.

			Account	123-654-987	
			Statement Date:	15/04/2012	
Tran s	Date	Description	Debit	Credit	Balance
		Opening Balance			R3 855.28
1	19/3	Embank ATM Withdrawal	R300.00		R3 555.28
2	22/3	EFT Pharmacon	R224.55		R3 330.73
3	25/3	WBG 11177 Salary		R14 124.65	R17 455.38
4	25/3	Sandton Centre ATM Withdr	R500.00		R16 955.38
5	28/3	Bank Fees	R71.10		R16 884.28
6	28/3	eNote	R7.00		R16 877.28
7	29/3	Acc 224-354-779 Int. d/o 001	R3 500.00		R13 377.28
8	31/3	First Student Ext d/o 001	R1 235.00		R12 142.28
9	31/3	Freedom Ins Bro Ext d/o 002	R350.00		R11 792.28
10	31/3	Gymbunny Ext d/o 003	R220.00		R11 572.28
11	31/3	Empty-N Ext d/o 004	R300.00		R11 272.28
12	31/3	Medisure Ext d/o 005	R720.00		R10 552.28
13	31/3	AA Rental Ag Ext d/o 006	R2 350.00		R8 202.28
14	31/3	Mutually In Ext d/o 007	R500.00		R7 702.28
15	31/3	Picking Pay North Rid #223	R432.65		R7 269.63
16	3/4	Embank ATM withdrawal	R500.00		R6 769.63
17	4/4	Woolworths#225	R425.00		R6 344.63
18	6/4	Twiggy Fashions #224	R762.95		R5 581.68
Balance					R5 581.68
Account Queries Toll Free 0860004444					

- 5.2.1 What is Sam's account number? (1)
 5.2.2 What is the opening balance? (1)
 5.2.3 Define the term 'opening balance'. (1)
 5.2.4 Why was Sam's account credited and by how much? (2)
 5.2.5 What date did Sam buy something from Woolworths? (1)
 5.2.6 How many debit orders affected Sam's account this month? (1)
 5.2.7 According to this transaction, how much does Sam pay the bank each month. (1)

Total(14)

Question 6: Data Handling

During the two days before Christmas, a clothing store sold a number of boys and men's shirts in the following sizes:

18; 18; 20; 20; 22; 24; 26; 26; 28; 30; 30; 32; 32; 32; 32; 32; 34; 34; 34; 36; 36; 36; 38; 38; 40; 40; 42; 42; 42; 42; 44.

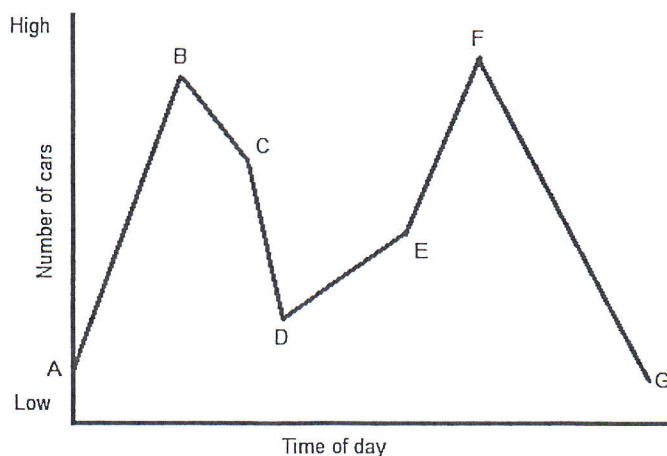
- 6.1 What is the smallest size of shirt sold? (1)
- 6.2 What is the largest size of shirt sold? (1)
- 6.3 Determine the range of the data. (1)
- 6.4 How many shirts were sold in the two days? (1)
- 6.5 Calculate the mean of the data (round off to the nearest shirt size).
Show ALL working. (3)
- 6.6 What is meant by the mode of a set of data? (1)
- 6.7 Find the mode of this set of data. (1)
- 6.8 Find the median of the set of data. (1)

Total(10)

Question 7: Graph Interpretation

- 7.1 What relationship does this graph illustrate? (2)

Graph of traffic congestion against time of day



7.2 The graph shows the situation at different times of the day, from very early in the morning to very late at night. Identify the section for each of the following times of day:

- | | | |
|-------|---|-----|
| 7.2.1 | Everyone is going to school and work. | (1) |
| 7.2.2 | School children are going home from school. | (1) |
| 7.2.3 | Workers are going home in the evening. | (1) |
| 7.2.4 | Mid-morning when most people are at work and school. | (1) |
| 7.2.5 | After supper when the roads are still busy with people going out for the evening, but as the night settles, the roads become quieter. | (1) |
| 7.3 | What do you think section BC represents? | (2) |

Total(9)