



Dr. Johan Jurgens High School
Mathematical Literacy
Grade 10
November Exam
Paper 2

Examiner: Ms. N. Gertenbach
Moderator: Mrs. M. Botha

Time: 1 Hours 30 Minutes
Total: 75 marks

Name and Surname: _____

Grade: 10 Key _____

Date: _____

Finance	Finance	Measurements	Maps	
Question 1	Question 2	Question 3	Question 4	Total
____ / 16	____ / 22	____ / 20	____ / 17	____ / 75

Instructions:

1. Please write your name, surname, grade and date in the space provided on the question paper.
2. Please write your name, surname, grade and date on the folio paper.
3. This paper consists of **4 QUESTIONS**.
4. Read all questions carefully and think before your answer.
5. Write down all your calculations, where applicable.
6. Non-programmable calculator may be used.
7. Round off two decimal places, unless stated otherwise.
8. Write with a blue pen and cross out with a pencil if you made a mistake.
9. Please write neatly and legibly. (If I can't read it I can't mark it!)
10. Take a deep breath, you got this.
11. Good luck!!!!

This question consists out of 9 pages.

Question 1:

1.1 Convert the following:

1.1.1 3765 grams to kilograms. (2)

1.1.2 420 minutes to hours. (2)

1.2 Mr Morolong took his car to the car wash. Below is the receipt he received after making a payment.

Koffies car wash No 8 Kruger road Koffiefontein 9986 053 205 0010	
Cashier 1 13/10/25 02:14 PM 30181967104	
1 Gold Wash	R65,00
1 Car Polish	R10,00
1 Braai Plate	R50,00
Total	R125,00
VAT @ 15%	R18,75
Total Paid	R143,75

Use the information above and answer the questions that follow:

1.2.1 Write down the date that Mr. Morolong took his car to the car wash. (2)

1.2.2 Write VAT out in words. (2)

1.2.3 Express the time shown on the receipt in 24-hour format. (2)

1.2.4 What is the probability of selecting an item that cost R50,00. (2)

- 1.3 The year 2028 will be a leap year. Below is a calendar of February 2028.

FEBRUARY 2028						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	February Holidays Groundhog Day - 2 Valentines Day - 14 President's Day - 21			
<small>free-printable-calendars.com</small>						

***NOTE:** A leap year has 29 days in February.

Use the calendar above to answer the following questions:


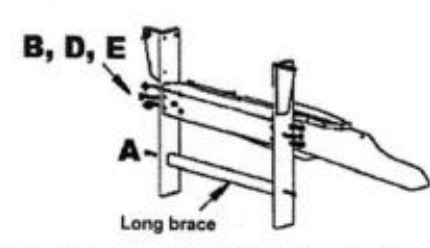

















- 1.3.1 Write down, in full, the date of the second Tuesday of February in 2028. (2)
- 1.3.2 Write down the year of which was a leap year before 2024. (2)

[16]

Question 2:

2.1 Your Dad bought 10 of these wooden chairs, for a family gathering, as shown in the diagram below. The packages came with parts together with assembly instructions.

Use the diagram to answer the questions below

<p style="text-align: center;">STEP 4 COMPLETED CHAIR</p>  <p style="text-align: center;">Short brace A</p>	<p style="text-align: center;">STEP 1</p>  <p style="text-align: center;">B, D, E A Long brace</p> <p>Attach the seat using bolts (B), nuts (E) and washers (D) to the two front legs. Attach the long brace using the screws (A).</p>																		
<p style="text-align: center;">STEP 3</p>  <p style="text-align: center;">A A</p> <p>Attach the back to the seat and arms using the screws (A).</p>	<p style="text-align: center;">STEP 2</p>  <p style="text-align: center;">C, D, E</p> <p>Attach the arms to the two front legs using the bolts (C), nuts (E) and washers (D).</p>																		
<p>TYPE OF FASTENER</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 0 auto;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">A Screw</th> <th style="width: 20%;">B Bolt</th> <th style="width: 20%;">C Bolt</th> <th style="width: 20%;">D Washer</th> <th style="width: 20%;">E Nut</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: left;">Quantity</td> <td style="text-align: center;">8</td> <td style="text-align: center;">6</td> <td style="text-align: center;">...</td> <td style="text-align: center;">8</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>			A Screw	B Bolt	C Bolt	D Washer	E Nut							Quantity	8	6	...	8	8
	A Screw	B Bolt	C Bolt	D Washer	E Nut														
																			
Quantity	8	6	...	8	8														

*NOTE: Weight limit of each wooden chair is 140 kg.

2.1.1 Determine the number of Type C bolts used to assemble the wooden chair. Use STEP 2 to answer this question. (2)





2.1.2 Calculate the total number of Type A screws needed for 10 wooden chairs. (3)

2.1.3 How many nuts are left after step 1 is completed. (2)

2.1.4 Name the last **Type of fastener** to complete step 4. (2)

Question 3:


3.1 The images below represent measuring instruments used to measure mass and volume. Study the images below and answer the questions that follow.

A	B
	
C	D
	

Match the description below with the images above. Write down only the correct letter (A-D).

- 3.1.1 An instrument used to measure the weight of meat in a butchery. (2)
- 3.1.2 An instrument used to measure the weight of different types of food in a kitchen. (2)
- 3.1.3 An instrument used to measure different types of liquids. (2)
- 3.1.4 An instrument used to measure the weight/mass of a person. (2)

3.2 Below is a recipe that Nomsa used to make buttermilk rusks for her tea birthday party.

Ingredients (Makes 25 rusks)	Buttermilk rusks
<ul style="list-style-type: none"> • 1,5 kg self- raising flour • 3 ml salt • 10 ml cream of tartar • 500 g butter • 350 g sugar • 500 ml buttermilk 	

*NOTE:

- Preparation time: 45 minutes
- Bake for 35 minutes at 180⁰
- 1 tsp = 5 ml
- 1 cup = 250 ml

3.2.1 Determine the number of buttermilk cups needed for this recipe. (2)

3.2.2 Nomsa bought 1 kg of sugar to bake the rusks. Calculate how much sugar, in grams, will be left. (3)

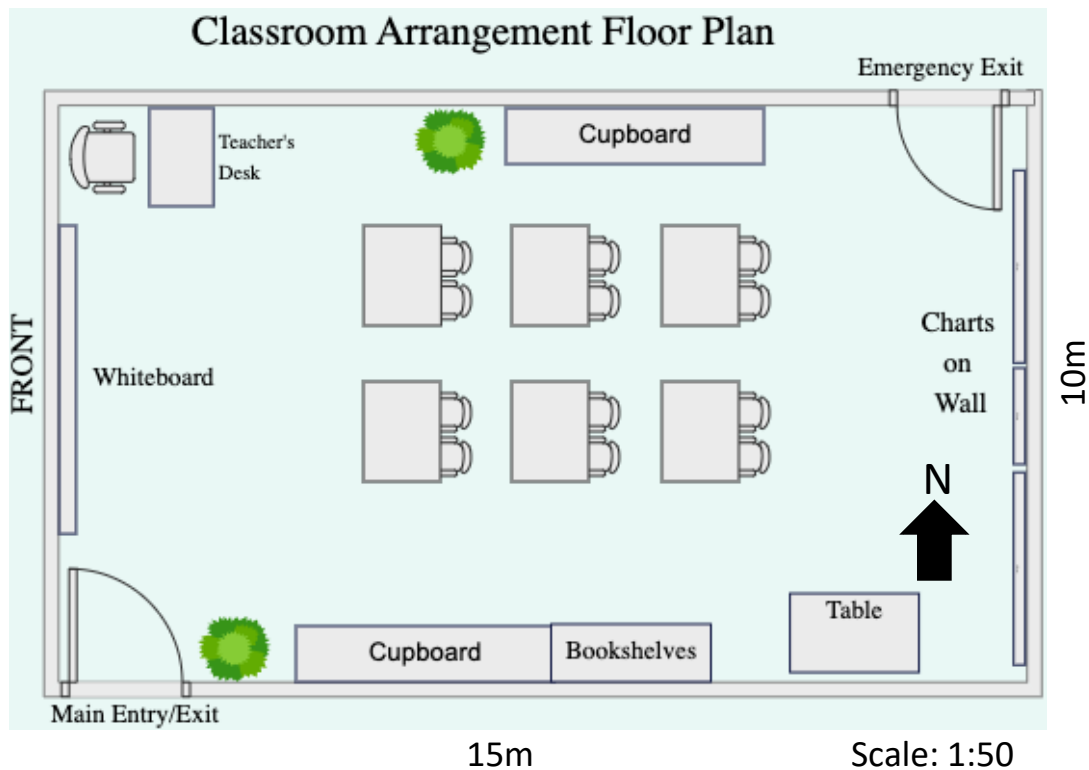
3.2.3 Write down the ratio of the amount of and the amount of cream of tartar. Simplify the ratio to 1: ... (3)

3.2.4 Nomsa stated that if she starts the whole process of making the rusks at 7:15 she will be able to finish on time for her tea party that will start at 9:00. Verify, by means of calculation, whether her statement is correct. (4)

[20]

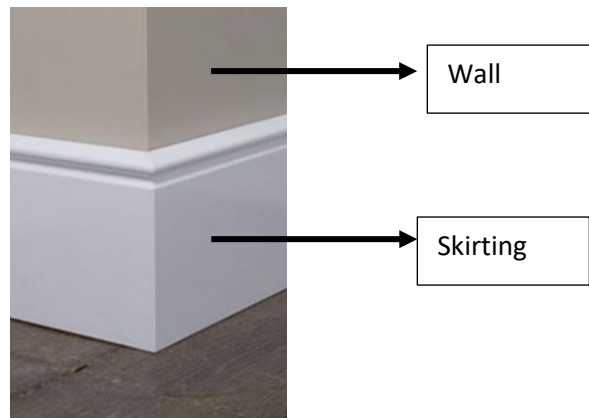
Question 4:

4.1 The floor plan below is of Mrs. M. Moloi's classroom. Study the floor plan and answer the questions that follow.



- 4.1.1 Define the term floor plan in the context. (2)
- 4.1.2 Name the type of scale used in the diagram above. (2)
- 4.1.3 Determine the maximum number of learners that can occupy this classroom. (2)
- 4.1.4 In which general direction is the Mrs. M. Moloi's desk facing? (2)
- 4.1.5 Calculate the perimeter of the classroom. START with the formula. (3)
- 4.1.6 Name ONE reason why Mrs. M. Moloi's classroom has an EMERGENCY EXIT. (2)

- 4.2 Mrs M. Moloji requested the principal to replace the skirting in her class. The skirting will be placed around the classroom except where there are doors.



***NOTE:** Skirting is a wooden board running along the base of an interior wall.

- 4.2.1 Calculate the total length of the skirting that must be bought if the width of each door is 0.8 m. (2)
- 4.2.2 Calculate how much the school will spend to buy new skirting if the skirting costs R49.99 per meter. (2)

[17]

TOTAL: 75 marks