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MATHEMATICS: EXAMINATION

GRADE 10 · TERM 3 · 2026

FINANCE · STATISTICS · TRIGONOMETRY · EUCLIDEAN GEOMETRY

TOTAL: 60 MARKS **TIME: 1 HOUR 15 MINUTES** **EXAMINER: B. DAVHANA**

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions in your ANSWER BOOK.
2. Clearly show ALL calculations, diagrams and graphs that you have used in determining your answers.
3. Answers only will NOT necessarily be awarded full marks.
4. An approved scientific calculator (non-programmable and non-graphical) may be used, unless stated otherwise.
5. If necessary, round off answers to TWO decimal places, unless stated otherwise.
6. Diagrams are NOT necessarily drawn to scale.
7. Answer QUESTION 2.1.3 and QUESTION 2.2.3 on ANNEXURE A at the back of this question paper. Write your name on the ANNEXURE and hand it in with your ANSWER BOOK.
8. Number the answers correctly according to the numbering system used in this question paper.
9. Write neatly and legibly.

QUESTION 1

1.1 Sylvia wants to buy a Defy dishwasher which is priced at R9 899 by means of a hire purchase agreement.

The conditions of the hire purchase agreement are as follows:

- Sylvia must pay a 30% deposit of the purchase price
- Interest is charged at 12% per annum simple interest on the balance
- Compulsory monthly insurance premium of R65,30
- The balance must be paid in monthly instalments
- Account should be settled in 36 months

1.1.1 Calculate the balance after Sylvia has paid the deposit. (2)

1.1.2 Calculate her monthly instalment, if the settlement must be settled in 36 months. (5)

1.2 The table below shows the exchange rate of the British pound and the US dollar in South African rand.

COUNTRY	UNIT	EXCHANGE RATE
USA	Dollar ($)	R16,24
England	Pound (£)	R27,63

1.2.1 George, a visitor from England, saw an industrial textile machine on sale for $6 800. This machine is suitable for his business back at home. The cost for a similar machine in England is £4 600. Calculate in which country will it be cost saving for George to buy the machine. (3)

1.2.2 To install an outdoor swimming pool will cost you £800 in England. How much will it cost you to install a swimming pool of the same capacity in South African rand? (2)

[12]

QUESTION 2

2.1 The following mathematics test marks were recorded for a Grade 10A class of 28 students.

MARKS	FREQUENCY	MIDPOINTS	MIDPOINT × FREQUENCY
$0 < x \leq 30$	2	15	30
$30 < x \leq 40$	3	35	105
$40 < x \leq 50$	11	45	495
$50 < x \leq 60$	7	55	
$60 < x \leq 70$	3		195
$70 < x \leq 80$	2	75	150
$80 < x \leq 100$	0	90	0

2.1.1 Complete the table above by filling in the two missing numbers. (2)

2.1.2 Calculate an estimate of the mean mark. (2)

2.1.3 Represent the data on a frequency polygon. Answer this question on ANNEXURE A. (3)

2.1.4 In which interval does the

(a) median lie? (2)

(b) 80th percentile lie? (2)

2.2 The following Mathematics test marks of a Grade 10B class are recorded below:

45	49	50	51	51	53	54	57	57	59	60	64
65	66	70	71	73	74	75	76	83	89	89	

2.2.1 Write down the median mark for this class. (1)

2.2.2 Calculate the interquartile range mark for this class. (3)

2.2.3 Represent the data on a box and whisker diagram. Answer this question on ANNEXURE A. (3)

2.2.4 Comment on the distribution of the data with reference to the box and whisker diagram. (2)

[20]

QUESTION 3

3.1 If $x = 229{,}5°$ and $y = 117{,}6°$, determine to two decimal places the values of:

3.1.1 $\sin(x + y)$ (2)

3.1.2 $\cos 2y$ (2)

3.1.3 $\text{cosec}\, x$ (2)

3.2 Determine the value of x to one decimal place:

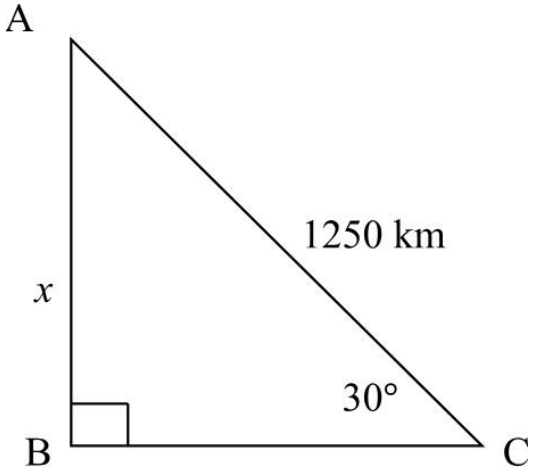
3.2.1 $\cos 2x = 0{,}50$ (2)

3.2.2 $7 \sec x - 11 = 0$ (3)

3.3 If $\cos x = \frac{3}{4}$ and $0° < x < 90°$, determine the value of $\tan x$. (3)

3.4 If $\tan \theta = \frac{6}{8}$ and $\sin \theta < 0$, determine the value of $\sec \theta - \text{cosec}\, \theta$. (5)

3.5 Without using a calculator, determine the value of x in the diagram below.

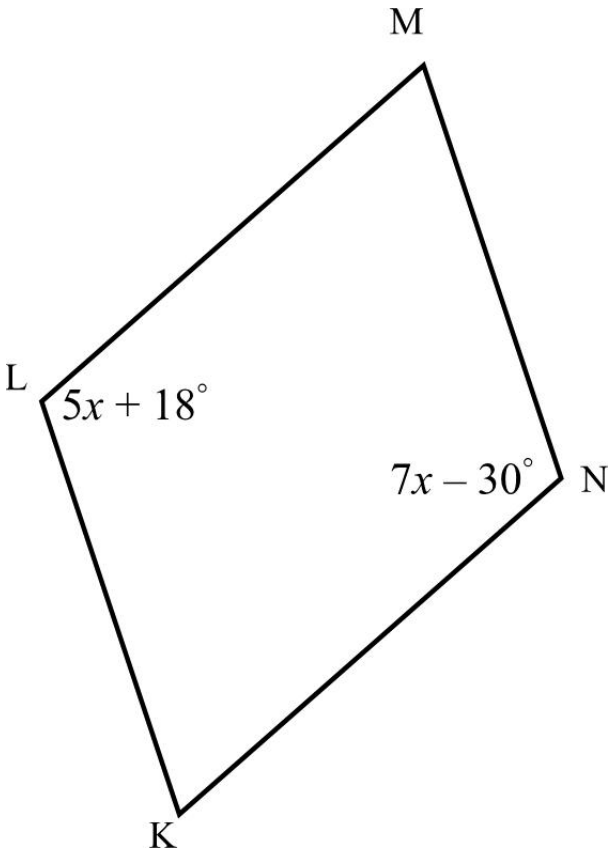


(2)

[21]

QUESTION 4

In the diagram below, KLMN is a parallelogram with $\hat{N} = 7x - 30°$ and $\hat{L} = 5x + 18°$.



4.1 Calculate the value of x. (4)

4.2 If it is further given that $L\hat{K}N = 4y$, determine the value of y. (3)

[7]

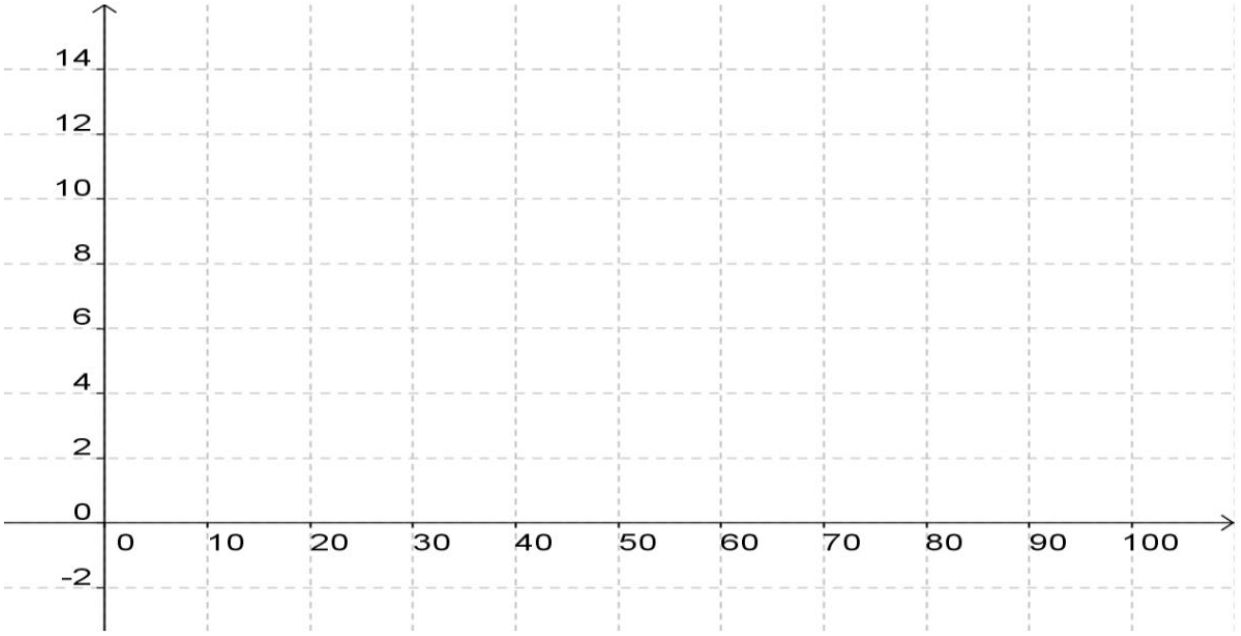
TOTAL: 60

ANNEXURE A

NAME: _____ GRADE / CLASS: _____

QUESTION 2.1.3

FREQUENCY POLYGON OF GRADE 10 MATHEMATICS CLASS
FREKWENSIE-POLIGOON VAN *GRAAD 10 WISKUNDEKLAS*



GRADE 10 MATHEMATICS MARKS
GRAAD 10 WISKUNDEPUNTE

QUESTION 2.2.3

