



VHEMBE EAST DISTRICT

SENIOR PHASE

GRADE 9

MATHEMATICS

TERM 3 COMMON TEST

SEPTEMBER 2026

MARKS: 50

TIME: 2 Hours

This question paper consists of 7 pages, including the cover page.

INSTRUCTIONS:

1. Answer all the questions.
2. Start each question on a new page.
3. Number your answers the way the questions are numbered.
4. Show all calculations.
5. Answer Question 4.2.2 on ANNEXURE A and **submit it with your answer book.**
6. A non-programmable calculator may be used.

QUESTION 1: MULTIPLE-CHOICE QUESTIONS

[10]

Choose the correct answer from the options provided. Write only the letter (A–D) next to the question number. e.g. **1.11 D**

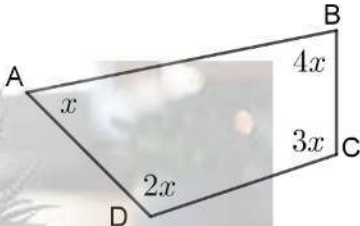
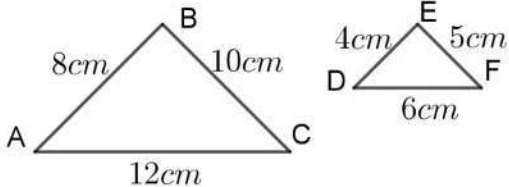
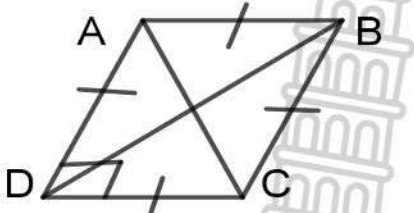
1.1	Which statement best describes a rectangle? A. The diagonals are equal in length and bisect each other at 90° . B. The longer diagonal bisects the shorter one. C. The diagonals bisect each other at 90° . D. The diagonals are equal in length and bisect each other.	(1)
1.2	$\triangle AKB$ and $\triangle DLC$, $\hat{A} = \hat{C}$ and $\hat{K} = \hat{L}$. Which of the following statements is correct? A. $\triangle AKB \parallel \triangle DLC$ B. $\triangle ABK \parallel \triangle CLD$ C. $\triangle BAK \parallel \triangle CDL$ D. $\triangle BAK \parallel \triangle DCL$	(1)
1.3	Quadrilateral PQRS is a parallelogram with $\hat{P} = 2x + 40^\circ$ and $\hat{R} = x + 100^\circ$. What is the size of $\hat{P}$? A. 40° B. 60° C. 140° D. 160°	(1)
1.4	The perimeter of a rectangle is 28cm. What is the length if the width is 5cm? A. 3cm B. 4cm C. 9cm D. 6cm	(1)
1.5	If the length of a square is 0,5cm, the area is... A. $2,5\text{cm}^2$ B. $1,0\text{cm}^2$ C. $0,25\text{cm}^2$ D. 25cm^2	(1)
1.6	Determine the median of the data set below: 1 12 5 15 11 9 7 A. 5 B. 11 C. 9 D. 7	(1)
1.7	The mode of a data set is the... A. Most common number. B. Biggest number – smallest number. C. Middle number. D. Average of the data.	(1)

1.8	The correct tally table in the following data is ... 1 2 3 1 2 3 4 1 3 2 2 1 1 A. <table> <tr> <th>Assessment</th><th>Tally</th><th>Frequency</th></tr> <tr> <td>1</td><td> </td><td>5</td></tr> <tr> <td>2</td><td> </td><td>3</td></tr> <tr> <td>3</td><td> </td><td>3</td></tr> <tr> <td>4</td><td> </td><td>2</td></tr> </table> B. <table> <tr> <th>Assessment</th><th>Tally</th><th>Frequency</th></tr> <tr> <td>1</td><td> </td><td>5</td></tr> <tr> <td>2</td><td> </td><td>4</td></tr> <tr> <td>3</td><td> </td><td>3</td></tr> <tr> <td>4</td><td> </td><td>1</td></tr> </table> D. <table> <tr> <th>Assessment</th><th>Tally</th><th>Frequency</th></tr> <tr> <td>1</td><td> </td><td>1</td></tr> <tr> <td>2</td><td> </td><td>2</td></tr> <tr> <td>3</td><td> </td><td>4</td></tr> <tr> <td>4</td><td> </td><td>5</td></tr> </table> C. <table> <tr> <th>Assessment</th><th>Tally</th><th>Frequency</th></tr> <tr> <td>1</td><td> </td><td>4</td></tr> <tr> <td>2</td><td> </td><td>5</td></tr> <tr> <td>3</td><td> </td><td>3</td></tr> <tr> <td>4</td><td> </td><td>1</td></tr> </table>	Assessment	Tally	Frequency	1		5	2		3	3		3	4		2	Assessment	Tally	Frequency	1		5	2		4	3		3	4		1	Assessment	Tally	Frequency	1		1	2		2	3		4	4		5	Assessment	Tally	Frequency	1		4	2		5	3		3	4		1	(1)
Assessment	Tally	Frequency																																																												
1		5																																																												
2		3																																																												
3		3																																																												
4		2																																																												
Assessment	Tally	Frequency																																																												
1		5																																																												
2		4																																																												
3		3																																																												
4		1																																																												
Assessment	Tally	Frequency																																																												
1		1																																																												
2		2																																																												
3		4																																																												
4		5																																																												
Assessment	Tally	Frequency																																																												
1		4																																																												
2		5																																																												
3		3																																																												
4		1																																																												
1.9	A bag contains 5 red balls, 3 blue balls and 2 green balls. One ball is chosen at random. What is the probability of choosing a blue ball? A. $\frac{1}{10}$ B. $\frac{3}{10}$ C. $\frac{1}{3}$ D. $\frac{3}{5}$	(1)																																																												
1.10	A weather forecast says that there is a 70% chance of rain tomorrow. What is the probability that it will not rain tomorrow? A. 30% B. 20% C. 50% D. 70%	(1)																																																												



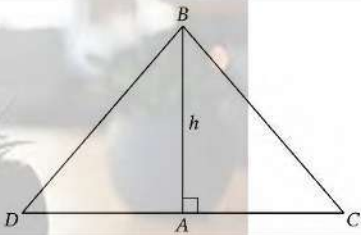
QUESTION 2

[13]

2.1	The quadrilateral ABCD is given below with $\hat{A} = x$, $\hat{B} = 4x$, $\hat{C} = 3x$ and $\hat{D} = 2x$ Calculate the value of x. Give reasons for your statements 	(3)															
2.2	The quadrilateral PQRS given below is a parallelogram. Complete from 2.2.1 to 2.2.4 																
	<table border="1"> <thead> <tr> <th>Statement</th><th>Reason</th><th></th></tr> </thead> <tbody> <tr> <td>$\hat{P} = \dots$ 2.2.1</td><td>Opp $\angle$s of a gram</td><td>(1)</td></tr> <tr> <td>$\hat{S}_1 = \hat{Q}_1$</td><td>.....2.2.2</td><td>(1)</td></tr> <tr> <td>$SQ = SQ$</td><td>.....2.2.3</td><td>(1)</td></tr> <tr> <td>$\therefore \Delta PQS \equiv \Delta RSQ$</td><td>.....2.2.4</td><td>(1)</td></tr> </tbody> </table>	Statement	Reason		$\hat{P} = \dots$ 2.2.1	Opp $\angle$ s of a gram	(1)	$\hat{S}_1 = \hat{Q}_1$	2.2.2	(1)	$SQ = SQ$	2.2.3	(1)	$\therefore \Delta PQS \equiv \Delta RSQ$	2.2.4	(1)	
Statement	Reason																
$\hat{P} = \dots$ 2.2.1	Opp $\angle$ s of a gram	(1)															
$\hat{S}_1 = \hat{Q}_1$	2.2.2	(1)															
$SQ = SQ$	2.2.3	(1)															
$\therefore \Delta PQS \equiv \Delta RSQ$	2.2.4	(1)															
2.3	Consider ΔABC and ΔDEF with $AB = 8\text{cm}$, $BC = 10\text{cm}$, $AC = 12$, $DE = 4\text{cm}$, $EF = 5\text{cm}$ and $DF = 6\text{ cm}$ as shown below. 																
2.3.1	Two triangles are similar if their corresponding sides are.....	(1)															
2.3.2	Prove that $\Delta ABC \parallel \Delta DEF$. Give reasons for your statements.	(3)															
2.4	Two learners, Twarisani and Noah are arguing about quadrilateral PQRS given below.  Twarisani says quadrilateral PQRS is a rhombus. Noah says quadrilateral PQRS is a square. Who is right? Give one reason to support your answer.	(2)															

QUESTION 3

[6]

3.1	In $\triangle BCD$, $DA = AC$, $BC = BD$, height $BA = 8\text{cm}$ and $DA = 6\text{cm}$.		
3.1.1	Calculate the area (A) of $\triangle BCD$. Given $A = \frac{1}{2}b \times h$		(2)
3.1.2	Find the length of BC.		(2)
3.1.3	Calculate the perimeter of $\triangle BCD$		(2)

QUESTION 4

[15]

4.1	A researcher analyses data on people suffering from a flu virus. The ages of the people are: 60 80 75 87 88 49 94 84 59 86 82 62 79 89 78																																
4.1.1	Draw a stem-and-leaf plot.		(3)																														
4.1.2	What is the range of the ages?		(1)																														
4.1.3	Calculate the mean of the ages.		(2)																														
4.1.4	What is the median of the ages?		(1)																														
4.2	The table below shows the time in minutes it took 30 Grade 9 learners to complete 5 laps around an athletics track. <table border="1"><tr><td>30</td><td>9</td><td>23</td><td>10</td><td>22</td><td>31</td><td>21</td><td>32</td><td>28</td><td>35</td></tr><tr><td>32</td><td>29</td><td>30</td><td>21</td><td>15</td><td>27</td><td>18</td><td>24</td><td>19</td><td>40</td></tr><tr><td>26</td><td>25</td><td>39</td><td>23</td><td>24</td><td>22</td><td>42</td><td>26</td><td>16</td><td>28</td></tr></table>	30	9	23	10	22	31	21	32	28	35	32	29	30	21	15	27	18	24	19	40	26	25	39	23	24	22	42	26	16	28		
30	9	23	10	22	31	21	32	28	35																								
32	29	30	21	15	27	18	24	19	40																								
26	25	39	23	24	22	42	26	16	28																								
4.2.1	Complete the frequency table below by giving the values of a , b , c and d <table border="1"><thead><tr><th>Time</th><th>Frequency</th></tr></thead><tbody><tr><td>0 – 9</td><td>1</td></tr><tr><td>10 – 19</td><td>a</td></tr><tr><td>20 – 29</td><td>b</td></tr><tr><td>30 – 39</td><td>c</td></tr><tr><td>40 – 49</td><td>d</td></tr></tbody></table>	Time	Frequency	0 – 9	1	10 – 19	a	20 – 29	b	30 – 39	c	40 – 49	d		(4)																		
Time	Frequency																																
0 – 9	1																																
10 – 19	a																																
20 – 29	b																																
30 – 39	c																																
40 – 49	d																																
4.2.2	Draw a histogram to represent the data in your table. USE ANNEXURE A.		(4)																														

QUESTION 5

[6]

5.1	A six-sided die numbered 1, 2, 3, 4, 5 and 6 is rolled once. Determine the probability of getting an even number.	(2)									
5.2	Cards numbered 1 to 20 are placed in a hat. If a card is drawn at random from the hat, determine the probability that:										
5.2.1	It will be a multiple of 3.	(1)									
5.2.2	It will be a prime number.	(1)									
5.3	A coin is tossed twice. The possible outcomes are recorded in the two-way table below. <table border="1"> <tr> <td></td><td>H</td><td>T</td></tr> <tr> <td>H</td><td>HH</td><td>HT</td></tr> <tr> <td>T</td><td>TH</td><td>TT</td></tr> </table> Determine the probability of getting at least one head.		H	T	H	HH	HT	T	TH	TT	(2)
	H	T									
H	HH	HT									
T	TH	TT									

TOTAL = 50



ANNEXURE A

Learner's name: _____ **Grade 9** _____

4.2.2

