



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE EAST DISTRICT

GRADE 8

MATHEMATICS

SEPTEMBER 2024

MARKS: 50

TIME: 2 hours

INSTRUCTIONS

1. Read all the instructions carefully
2. Answer all questions on a separate sheet
3. All working must be shown
4. The diagrams are not drawn to scale
5. The test is out of 50 marks
6. The test duration is 2 hours
7. Approved scientific calculators may be used

8 This question paper consists of 5 pages including the cover page

QUESTION 1**[8 MARKS]**

1.1 Four possible answers are given .Write down the letter of the correct answer
E.g. 11.A

1.1.1. The sum of the interior angles of a triangle is

- A. 60° B. 90° C. 180° D. 360° (1)

1.1.2. $p + p + p + p =$

- A. p^4 B. $4p$ C. $4p^4$ D. $\sqrt[4]{p}$ (1)

1.1.3. $-6x + 4x + 6x =$

- A. $-2x$ B. $16x$ C. $4x$ D. $2x$ (1)

1.1.4. $(7x^3y^2)^2 =$

- A. $14x^6y^4$ B. $49x^6y^4$ C. $7x^6y^4$ D. $49x^5y^4$ (1)

1.1.5. $\sqrt{16x^8} =$

- A. $8x^4$ B. $8x^2$ C. $4x^2$ D. $4x^4$ (1)

1.1.6. Which statement is incorrect

When lines are parallel

- A. Corresponding angles are equal
B. Alternate angles are equal
C. Cointerior angles add up to 180°
D. Vertically opposite angles are unequal

(1)

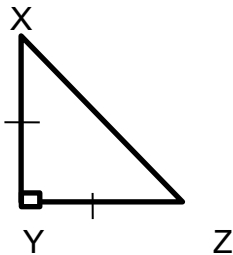
1.1.7. A quadrilateral having all sides equal and opposite angles equal is called a

- A. Rhombus
B. Rectangle
C. Kite
D. Square

(1)

1.1.8. In a right-angled triangle XYZ, $XY = YZ$. The size of angle X is.....

(1)



- A. 20° B. 30° C. 45° D. 60°

QUESTION 2**[8 MARKS]****Simplify**

2.1 $6x + 3x + (-7x)$ (2)

2.2 $2x^2(x^2 + 4)$ (2)

2.3 $\sqrt[3]{27(x^6y^3)}$ (2)

2.4 $\frac{2x^3 - 8x}{2x}$ (2)

QUESTION 3**[10 MARKS]**

3.1 Solve for x

3.1.1 $3x - 11 = 16$ (2)

3.1.2 $2^x = 16$ (2)

3.2 If $y = x^2 - 1$, what is the value of y if $x = -1$ (2)

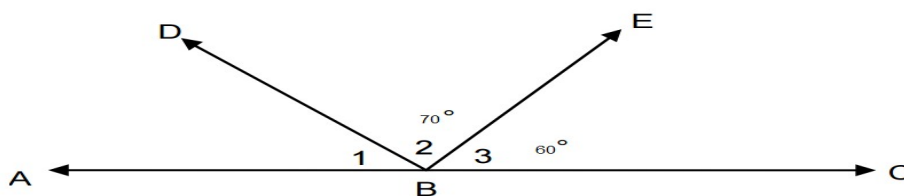
3.3 The sum of three consecutive numbers is 87. Find the numbers (4)

QUESTION 4**[9 MARKS]**

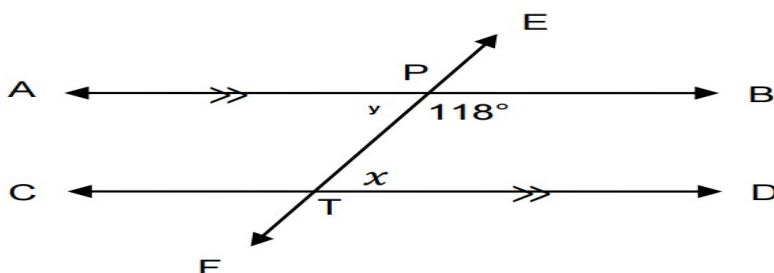
4.1 State true or false

4.1.1 The sum of the interior angles of a triangle is 180° (1)

4.2 In the diagram, ABC is a straight line, angle $B_2 = 70^\circ$ and $B_3 = 60^\circ$. Determine with reasons the size of $\angle B_1$ (4)



4.3 In the diagram below $AB \parallel CD$ $\angle BPT = 118^\circ$. Calculate with reasons the values of x and y (4)



QUESTION 5**[15 MARKS]**

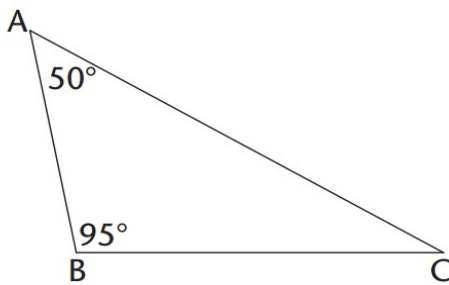
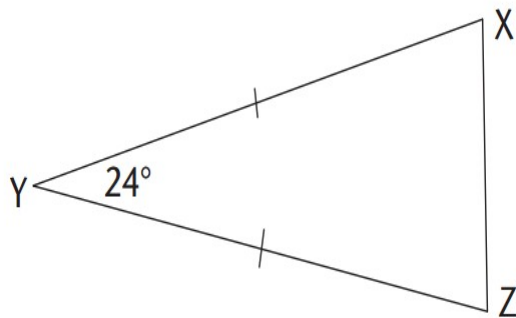
5.1 Choose the correct angle size from the list below

60°	90°	180°	360°
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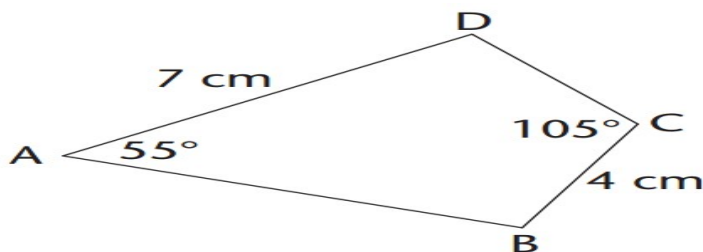
5.1.1 Each interior angle in an equilateral triangle = (1)

5.1.2 The largest angle in a right angled triangle = (1)

5.1.3 The sum of the interior angles of any quadrilateral = (1)

5.2 In triangle ABC, find the size of $\angle C$ (4)5.3 In triangle XYZ, calculate the sizes of $\angle X$ and $\angle Z$ (4)

5.4 ABCD is a kite, what are the lengths of AB and CD (4)

**TOTAL MARKS: 50**