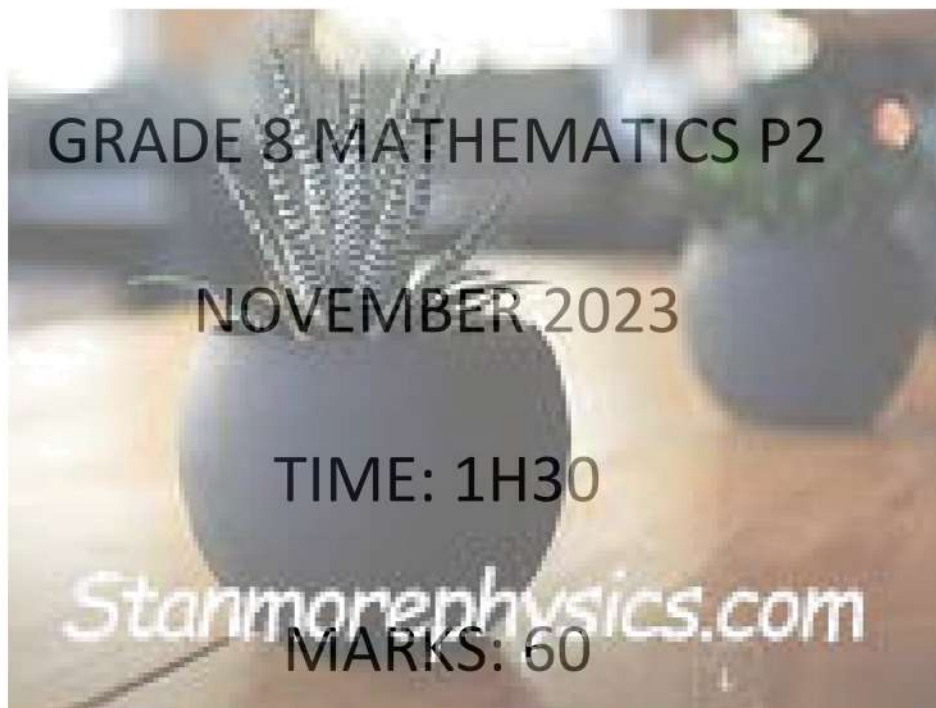




KWAZULU-NATAL PROVINCE

EDUCATION
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UMKHANYAKUDE DISTRICT



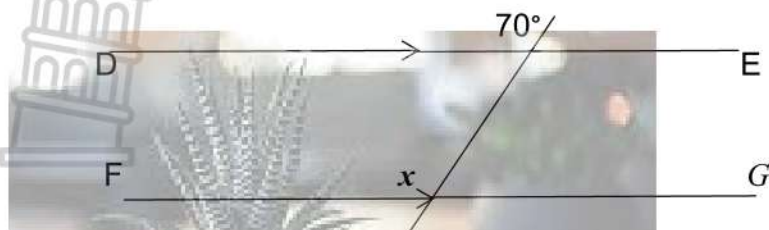
INSTRUCTIONS:

1. Answer ALL questions, Show ALL calculations.
2. Remember to give reasons where applicable.
3. Make use of the calculators.
4. Write neat and legible
5. Correct your answer into TWO decimals.
6. Do not write with a pencil.
7. Number the answers correctly according to the numbering. used in this question paper.
8. This question paper consists of 5 questions.



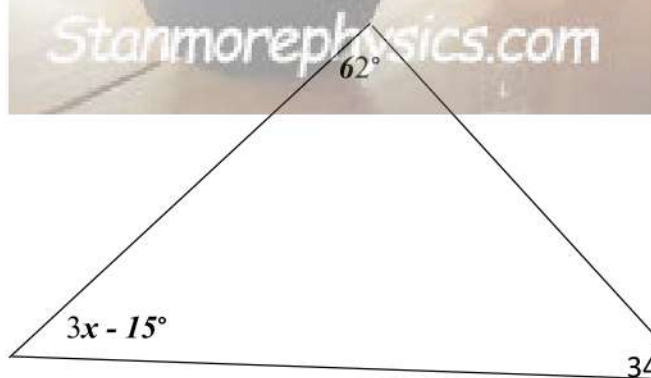
QUESTION 1: MULTIPLE CHOICE QUESTIONS, CHOOSE THE CORRECT ANSWER, i.e 1.8 = F

1.1 If $DE \parallel FG$, then the value of x is:



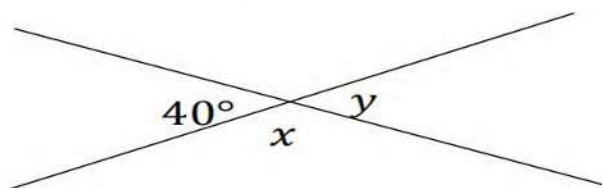
- A. 160° B. 20° C. 70° D. 110° (2)

1.2 Find the value of x :



- A. $x = 30^\circ$ B. $x = 36^\circ$ C. $x = 37^\circ$ D. $x = 33^\circ$ (2)

1.3 Determine the value of y :



- A. $y = 120^\circ$ B. $y = 40^\circ$ C. $y = 140^\circ$ D. $y = 70^\circ$ (2)

1.4 A transversal line means that.....

- A. Two lines crossing one line B. Parallel line C. perpendicular line
D. one line passing parallel line (2)

1.5 If $AB \perp CD$ this means that they form...

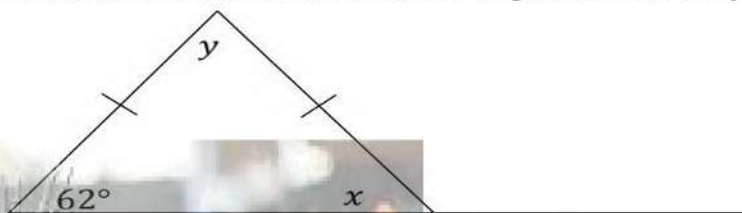
- A. 45° B. 90° C. 360° D. 180° (2)

[10]

QUESTION 2

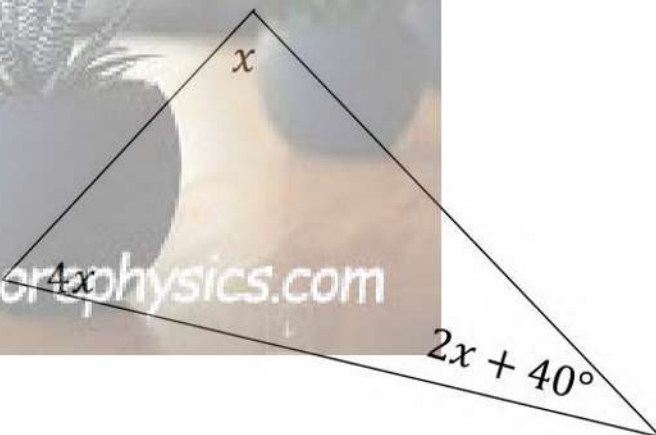
2.1 Solve for an unknown variables, remember to give reasons for your statements

2.1.1



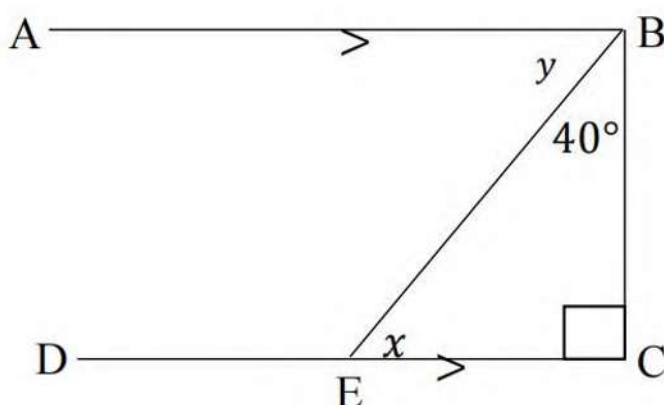
(5)

2.1.2



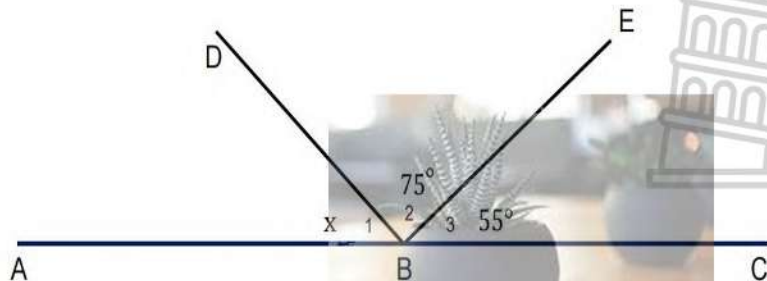
(3)

2.1.3



(5)

2.1.4



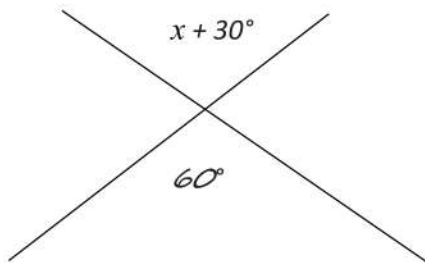
(3)

[16]

QUESTION 3: Find the value of the unknown variables, by giving reasons for your answers:

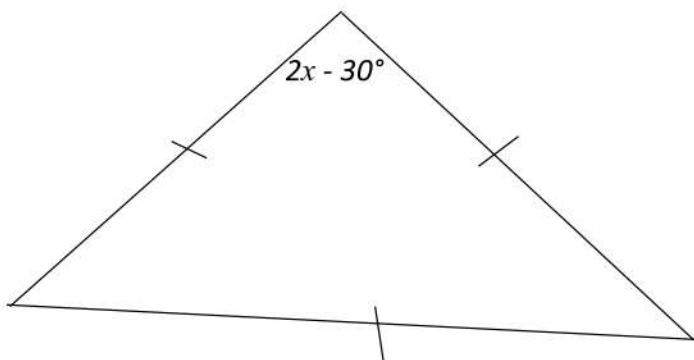


3.1



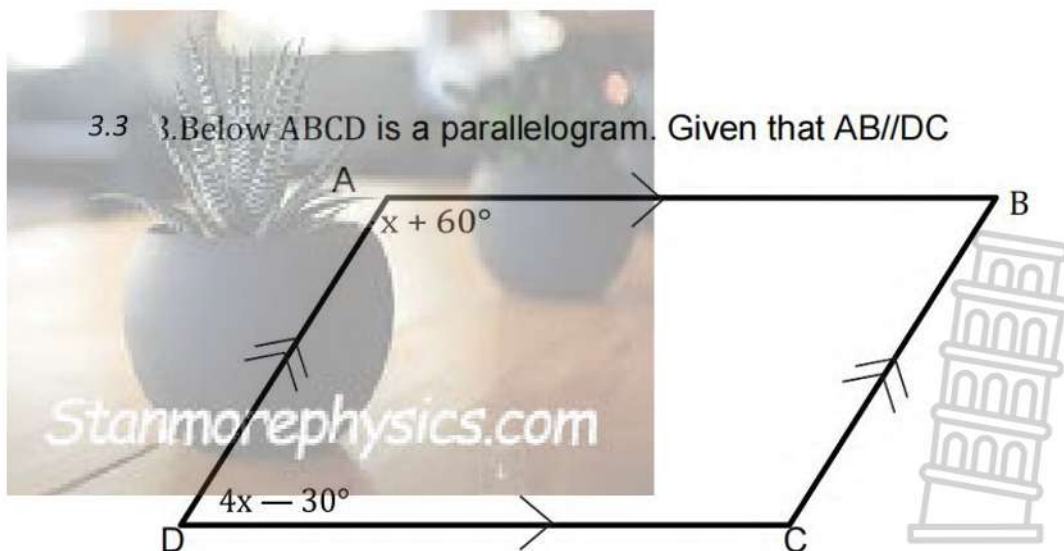
(3)

3.2



(4)

3.3 Below ABCD is a parallelogram. Given that $AB \parallel DC$



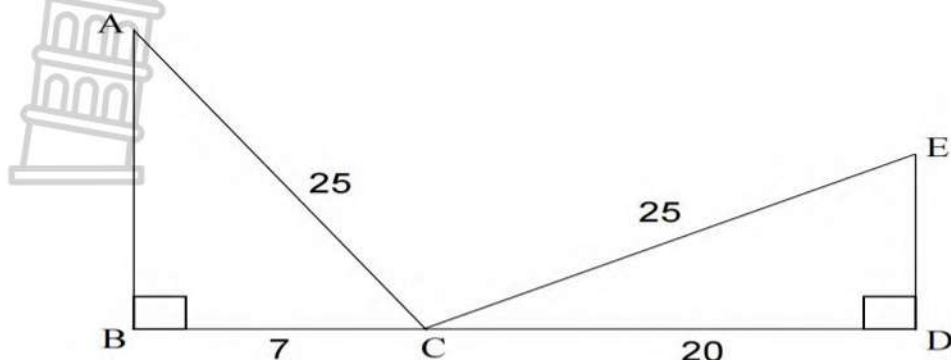
(4)

[11]

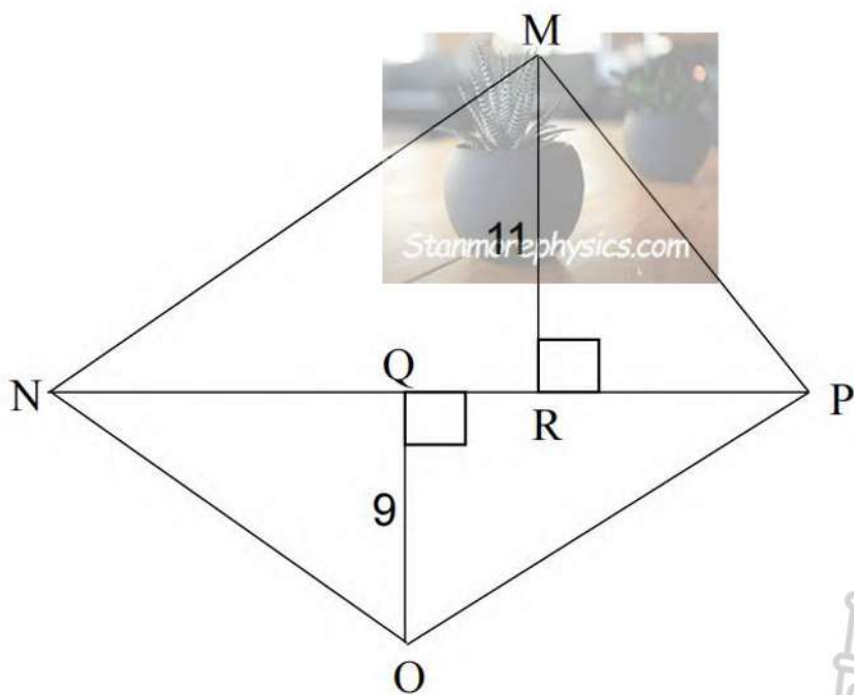
QUESTION 4

4.1 Find the length of AB and DE

(6)



4.2 Determine the distance of RP if MP=17, and ON if QN=15



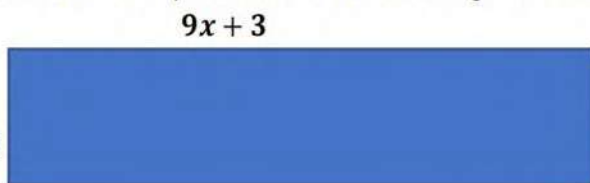
(6)

[12]

QUESTION 5



5.1. Determine the perimeter of the rectangle in terms of x



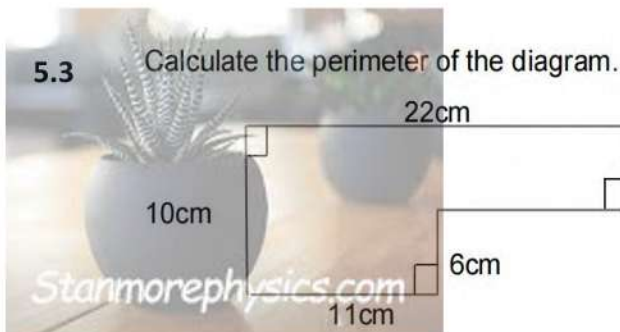
(4)

5.2. Find the Numerical value of the Area of the above rectangle if $x=3$

(3)

5.3

Calculate the perimeter of the diagram.



(4)

[11]

TOTAL MARKS = 60

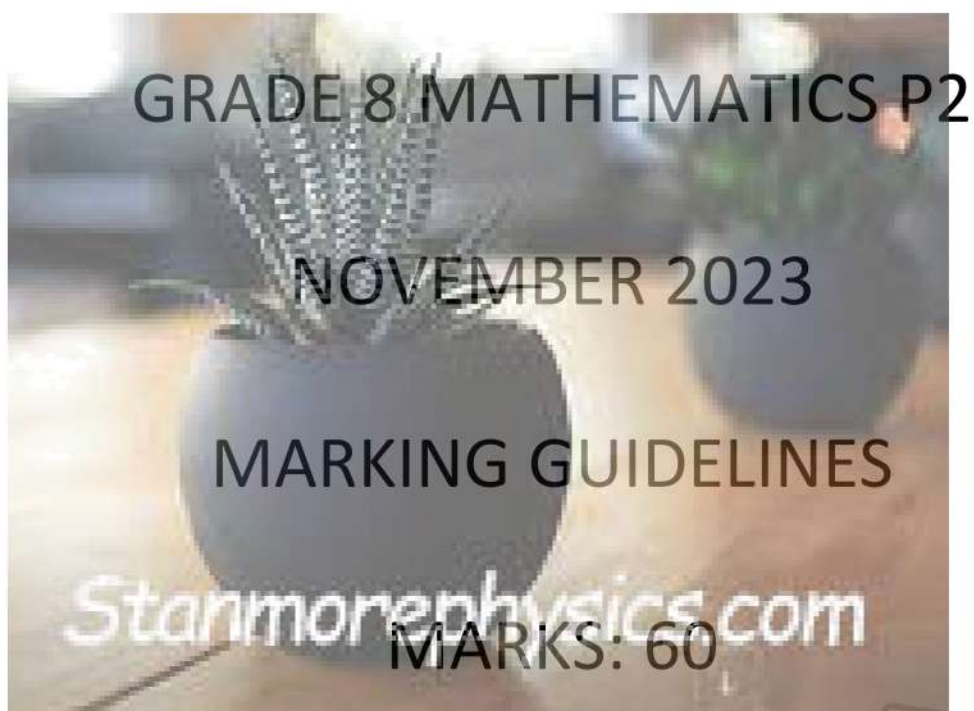




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This consists of 3 pages including the cover page



QUESTION 1

- 1.1 = C ✓✓
- 1.2 = D ✓✓
- 1.3 = B ✓✓
- 1.4 = D ✓✓
- 1.5 = B ✓✓

[10]

QUESTION 2

<p>2.1.1 $x = 62^\circ$opp sides opp angles are =</p> <p>$y + 62^\circ + 62^\circ = 180^\circ$sum of angles on a Δ</p> <p>$y = 56^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ S ✓ R ✓ Answer
<p>2.1.2 $x + 4x + 2x + 40^\circ = 180^\circ$ sum of angles on a Δ</p> <p>$X = 28^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ Answer
<p>2.1.3 $x + 90^\circ + 40^\circ = 180^\circ$sum of angles on a Δ</p> <p>$X = 50^\circ$</p> <p>$Y = 50^\circ$alt angles</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ Answer ✓ S ✓ R
<p>2.1.4 $x + 75^\circ + 55^\circ = 180^\circ$</p> <p>$x = 50^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ answer

[16]

QUESTION 3

<p>3.1 $x + 30^\circ = 60^\circ$vert opp angles</p> <p>$X = 30^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ Answer
<p>3.2 $2x - 30^\circ + 2x - 30^\circ + 2x - 30^\circ = 180^\circ$sum of angles on a triangle</p> <p>$6x - 90^\circ = 180^\circ$</p> <p>$6x = 270^\circ$</p> <p>$X = 45^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ 6x ✓ Answer
<p>3.3 $x + 60^\circ + 4x - 30^\circ = 180^\circ$co-interior angles</p> <p>$5x = 150^\circ$</p> <p>$x = 30^\circ$</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ 5x or 150° ✓ answer

[11]

QUESTION 4

<p>4.1 $(25)^2 = (7)^2 + AB^2$pythagorus</p> <p>$625 - 49 = AB^2$</p> <p>$AB = 24$ units</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ Answer
<p>$(25)^2 = (20)^2 + DE^2$pythagorus</p> <p>$625 - 400 = DE^2$</p> <p>$DE = 15$ units</p>	<ul style="list-style-type: none"> ✓ S ✓ R ✓ Answer

<p>4.2 $(17)^2 = (11)^2 + RP^2$pythagorus $289 - 121 = RP^2$ $RP = 12,96$ units</p>	<p>✓ S ✓ R ✓ Answer</p>
<p>$(15)^2 = (9)^2 + ON^2$pythagorus $225 - 81 = ON^2$ $ON = 12$ units</p>	<p>✓ S ✓ R ✓ Answer</p>

[12]

QUESTION 5

<p>5.1 $P = 2l + 2b$ $= 2(7x + 3) + 2(9x + 3)$ $= 32x + 12$</p>	<p>✓ Correct formula ✓ Substitution ✓ $32x$ ✓ 12</p>
<p>5.2 $= 32(3) + 12$ $= 10$</p>	<p>✓ Correct formula ✓ Substitute 3 ✓ 10</p>
<p>5.3 $P = 22\text{cm} + 10\text{cm} + 11\text{cm} + 6\text{cm} + 11\text{cm} + 4\text{cm}$ $= 64\text{cm}$</p>	<p>✓ 11cm ✓ 4cm ✓ Addition ✓ Answer</p>

[11]

TOTAL MARKS = 60

