

## GAUTENG DEPARTMENT OF EDUCATION

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| **CONTROL TEST TERM 3** | | |
| **SUBJECT** | **:** | **MATHEMATICS** |
| **GRADE** | **:** | **9** |
| **TASK** | **:** | **Term 3 Test** |
| **MARKS** | **:** | **50** |
| **DURATION** | **:** | **1 Hour** |

**NAME OF LEARNER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GRADE 9: \_\_\_**

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| **Question number** | **1** | **2** | **3** | **4** | **5** | **6** | **Total** |
| **Total marks** | **5** | **5** | **11** | **8** | **13** | **8** | **50** |
| **Learner marks** |  |  |  |  |  |  |  |
| **Moderated marks** |  |  |  |  |  |  |  |

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| **MATHEMATICS** |

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| **INSTRUCTIONS AND INFORMATION**  1. This question paper consists of **SECTION** A and **SECTION B** based on the prescribed content framework in the CAPS document.  **SECTION A: MULTIPLE CHOICE**  QUESTION 1: FIVE MULTIPLE CHOICE QUESTIONS BASED ON ALL  CONTENT AREAS COVERED.  **SECTION B: FIVE QUESTIONS BASED ON COVERED TOPICS**  QUESTION 2: FUNCTIONS AND RELATIONSHIPS.  QUESTION 3: GRAPHS.  QUESTION 4: TRANSFORMATION GEOMETRY.  QUESTION 5: GEOMETRY OF STRAIGHT LINES.  QUESTION 6: GEOMETRY OF 2D.  2. Answer ALL questions in both SECTIONS.  3. A non-programmable calculator may be used unless otherwise stated.  4. In **SECTION A** **choose the correct answer from the options provided and then write down the letter of the correct answer .**  5. In **SECTION B** show all necessary steps in your working unless otherwise stated.  6. **Use ANNEXURE 1 and ANNEXURE 2 to answer Questions 3.1.4 ; 3.1.5; 4.2.1 and Question 6**  7 When answering questions, candidates must apply their knowledge, skills and insight.  8. Number the answers correctly according to the numbering system used in this question paper.  9. Write neatly and legibly.  This question paper consists of 6 questions and 9 pages. |

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| QUESTION 1  **Choose the correct answer from the options provided and then write down the letter of the correct answer.** | | | | |
| 1.1 | Consider the following flow diagram:    The value of 𝑎 is :  A.  B.  C.  D. | |  | (1) |
| 1.2 | The gradient of the straight line drawn below is:    A. -1  B. 1  C. 0  D. 2 | |  | (1) |
| 1.3 | Look at the sketch below and then identify one pair of parallel lines.    A.  B.  C.  D. | |  | (1) |
| 1.4 | In .  The size of is?    A.  B.  C.  D. | |  | (1) |
| 1.5 | The transformation of to is called …    A. a reflection.  B. a reduction.  C. an enlargement.  D. a translation. | |  | (1) |
|  | | | | **[5]** |
| QUESTION 2 | | | | |
|  | Use the rule to complete the table below.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  |  |  |  | **(a)** | **(b)** | |  | **(c)** | **(d)** | **(e)** |  |  | | |  | (5) |
|  |  | |  | **[5]** |
| QUESTION 3 | | | | |
| 3.1 | A straight-line graph is defined by | |  |  |
|  | 3.1.1 | Determine the intercept of the graph. |  | (2) |
|  | 3.1.2 | What is the intercept of the graph? |  | (1) |
|  | 3.1.3 | What is the gradient of the straight-line graph? |  | (1) |
|  | 3.1.4. | Sketch the graph of Use **ANNEXURE 1** provided. |  | (3) |
|  | 3.1.5. | Sketch the graph of  Use the same set of axes as Question 3.1.4 (ANNEXURE 1). |  | (2) |
|  | 3.1.6. | Use any method to determine the value of ,for the point where the graphs of and intersect. |  | (2) |
|  | | | | **[11]** |
| QUESTION 4 | | | | |
| 4.1 | Complete the table:   |  |  |  | | --- | --- | --- | | **Point** | **Image** | **Transformation** | | (4;11) | (2;15) | **4.1.1.** | | (8; -3) | **4.1.2.** | Reflection in line | | **4.1.3.** | (6; -1) | Reflection in line y | | |  | (3) |

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| 4.2 | | Study the diagram below and then answer the questions that follow. | | |  |  |
|  | | 4.2.1. | Reflect the given image about the Draw the image on Annexure 2. | |  | (3) |
|  | | 4.2.2. | Write the rule that you used to reflect the object in **QUESTION 4.2.1** in the form: | |  | (2) |
|  | |  | | |  | **[8]** |
| QUESTION 5 | | | | | |  |
| 5.1. | Determine the value of angles | | |  | | (9) |
| 5.2. | is a parallelogram. Calculate the size of . | | |  | | (4) |
|  |  | | | | | **[13]** |

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|  | QUESTION 6 |  |
|  | Match the shape in column A with its description in column B and its picture in column C.  **Use ANNEXURE 2 to complete the table.**   |  |  |  |  | | --- | --- | --- | --- | | Column A | Column B | Column C | Answer | | Example:  Obtuse angled triangle | (a)3 sides, with one angle greater than but less than 18 | (i)  Classifying Shapes: 3.5 - Space - Mathematics Developmental Continuum P-10  - Department of Education and Early Childhood Development | 1. and (i) | | 6.1. Equilateral Triangle | (b) 3 sides, with one angle equal to | (ii) |  | | 6.2. Isosceles Triangle | (c). All three sides are different in size. | (iii) |  | | 6.3. Scalene Triangle | (d). A triangle where all three angles are equal to 6 | (iv) |  | | 6.4. Right Angled Triangle | (e). A triangle where the two base angles are equal | (v) |  | | (8) |
|  |  | **[8]** |

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| **Total** | **50 Marks** |

**ANNEXURE 1**

**SURNAME & NAME…………………………………………………….. Grade 9: …**

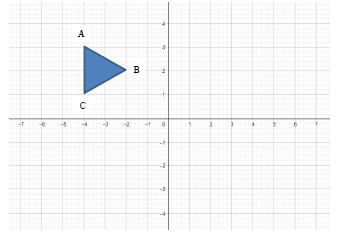
**QUESTION 3.1.4. and 3.1.5.**



**ANNEXURE 2**

**SURNAME & NAME…………………………………………………….. Grade 9: …**

**QUESTION 4.2.1.**



**QUESTION 6**

|  |  |  |  |
| --- | --- | --- | --- |
| Column A | Column B | Column C | Answer |
| Example:  Obtuse angled triangle | (a)3 sides, with one angle greater than but less than 18 | (i)  Classifying Shapes: 3.5 - Space - Mathematics Developmental Continuum P-10  - Department of Education and Early Childhood Development | 1. and (i) |
| 6.1. Equilateral Triangle | (b) 3 sides, with one angle equal to | (ii) | \_\_\_\_\_\_\_\_\_ |
| 6.2. Isosceles Triangle | (c). All three sides are different in size. | (iii) | \_\_\_\_\_\_\_\_\_ |
| 6.3. Scalene Triangle | (d). A triangle where all three angles are equal to 6 | (iv) | \_\_\_\_\_\_\_\_\_ |
| 6.4. Right Angled Triangle | (e).A triangle where the two base angles are equal | (v) | \_\_\_\_\_\_\_\_\_ |