

# COMMON ASSIGNMENT

**D9 JE**

**GRADE 9**

MATHEMATICS

# 2014

# SCHOOL BASED ASSESSMENT TASK

# MARKS: 50

# WEIGHTED MARK: 10

# SUGGESTED TIME: 1 hour

# TERM 1: Investigation

**INVESTIGATION**

**2015**

**MARKS: 50**

**TIME: 1 hour**

**This question paper consists of 6 pages**

**NAME:**

**GRADE 9:**

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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: TEN MULTIPLE CHOICE QUESTIONS BASED ON ALL  CONTENT AREAS COVERED    **SECTION B: THREE QUESTIONS BASED ON FIVE TOPICS**  QUESTION 2: FINANCIAL MATHEMATICS, RATE AND RATIO  QUESTION 3: WHOLE NUMBERS AND INTERGERS  QUESTION 4: EXPONENTS AND SCIENTIFIC NOTATION  2. Answer ALL questions in both SECTIONS.  3. A non-programmable calculator may be used unless otherwise stated.  4. In **SECTION A** **circle** the letter of the correct answer; and if you change your decision cross out the circled letter and circle your new choice  5. In SECTION B show all necessary steps in your working unless otherwise stated.  6. When answering questions apply your knowledge, skills and insight.  7. Number the answers correctly according to the numbering system used in this question paper.  8. Write neatly and legibly. |

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| **SECTION A** | | | |  |
| **Question 1** | | | |  |
| 1. | Circle the letter of the correct answer from the four possible answers. | | |  |
|  |  | | |  |
|  | 1.1 | Complete: is… | |  |
| A  B  C  D | neither a real and rational number  both a real and rational number  only a rational number  only a real number | (1) |
| 1.2 | Arrange the following numbers in ascending order:  -135; 45; -139; 77; 0; -220 | |  |
| A  B  C  D | 77; 45; 0; -135; -139; -220  -135; -139; -220; 0; 77; 45  -220; -139; -135; 0; 45; 77  0; 45; 77; -135; -139; -220 | (1) |
| 1.3 | Simplify | |  |
| A  B  C  D | 19692  9  12  15 | (1) |
| 1.4 | A car travels for 300 *km* at an average speed of 120*km/h*. If the trip started  at 09:00 what time will the car reach the destination? | |  |
| A  B  C  D | 10:30  12:00  13:00  11:30 | (1) |
| 1.5 | The LCM of 8; 12 and 20 is: | |  |
| A  B  C  D | 120  80  2  4 | (1) |
| 1.6 | Simplify 4,8 ÷ 0,2 | |  |
| A  B  C  D | 2,4  240  0,24  24 | (1) |
| 1.7 | The cost of 0,5kg of mincemeat is R39.50. What is the cost of this mincemeat in R/kg? | |  |
| A  B  C  D | R39.50/kg  R19.75/kg  R79.00/kg  R120.00/kg |  |
| 1.8 | Calculate 7 | |  |
| A  B  C  D | -2  -20  -34  None of the above | (1) |
| 1.9 | 15% of R560 is: | |  |
| A  B  C  D | R15  R84  R56  R48 | (1) |
| 1.10 | Write 0,00045 in scientific notation | |  |
| A  B  C  D | 45 × 10-4  4,5 × 104  4,5 × 10-5  4,5 × 10-4 | (1) |
|  | | | | **[10]** |

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| **SECTION B** | | |
| **Question 2** | | |
| 2.1 | Determine 20% of an amount if 10% of the amount is R400 | | (2) |
| 2.2 | Divide R120-00 in the ratio 3 : 2 | | (2) |
| 2.3 | A pair of jeans marked at R250-00 is sold at a discount of 13%. | | (3) |
| 2.4 | Calculate the amount that will be in the bank after 4 years if R2 500 was invested at 9% p.a. simple interest. | | (3) |
| 2.5 | Six boys each contribute R155, 50 towards the purchase of a tent. Calculate how much each would contribute if there were 10 boys in the group. | | (2) |
| 2.6 | Paul invests R2000 at 6% compound interest per annum. How much money will he have at the end of 5 years? | | (3) |
| 2.7 | Thobeka wants to order a book that costs $56, 67. If 1 dollar R7, 90. What is the price of the book in rands? Round off your answer to the nearest rands. | | (3) |
|  | | | **[18]** |
| **Question 3** | | | |
| 3.1 | Determine the value of *b*  in | | (1) |
| 3.2 | Simplify.  −5 (−3 7) 20 (4) | | (2) |
| 3.3 | Which number is the biggest?  or ? | | (1) |
| 3.4 | Write 0, 00125 in Scientific Notation. | | (2) |
| 3.5 | Calculate the HCF of ; and using prme factorisation method | | (5) |
| 3.6 | Calculate 3489 without the use of a calculator | | (2) |
|  | | | **[15]** |
| **Question 4** | | | |
| Simplify the following: | | |  |
|  | 4..1 |  | (2) |
| 4..2 | (*t* ³)³ | (2) |
| 4..3 |  | (3) |
|  | 4.4 | Simplify without using a calculator | (2) |
|  | | | **[7]** |
| **TOTAL: 50** | | | |

**FORMULA-SHEET**

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| Simple Interest: | Compound Interest: |