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| **Grade 8**  **First term Test**  **Time: 1 hour Marks 50** | | | |
| **Instructions:**   * Answer all the questions and show all your calculations. * Number your questions as on the question paper. * No calculators may be used   **Question 1**  **Choose the correct answer and write down the correct letter next to the question number.** | | | |
| 1.1 |  | Which of the following numbers are irrational numbers? | (2) |
| 1.2 |  | Write the ratio  in its simplest form.   1. 1 : 2 2. 5 : 8 3. 8 : 1 4. 2 : 3 | (2) |
| 1.3 |  | The value of is …   1. 0,4 2. 4 3. 40 4. 400 5. 4000 |  |

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| 1.4 |  | is equal to: | | | (2) |
| 1.5 |  | The values of is…   1. 5 2. 3 3. 4 4. 4 5. 8 | | | (2) |
|  |  |  | | | [10] |
| **Question 2** | | | | |  |
| From the above list write down all the: | | | | |  |
|  |  | 2.1.1 | Whole numbers | | (2) |
|  |  | 2.1.2 | Integers | | (2) |
|  |  | 2.1.3 | Irrational numbers (show all your steps) | | (2) |
|  |  | 2.1.4 | Non Real numbers | | (2) |
| 2.2 |  | Simplify without the use of a calculator. | | |  |
|  |  | 2.2.1 | |  | (3) |
|  |  | 2.2.1 | |  | (2) |
|  |  | 2.2.3 | |  | (4) |
|  |  | 2.2.4 | |  | (3) |
|  |  |  | | | [20] |

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| **Question 3** | | | |  |
| 3.1 |  | A bus driver covers a certain distance in three hours at an average speed of 80 km/h. Calculate the distance the bus has travelled. | | (3) |
| 3.2 |  | Calculate the interest that was earned on an investment of R 3000 that was invested for three years, at a simple interest rate of 7,5% per annum. | | (3) |
| 3.3. |  | The cost price of an item is R250. | |  |
|  |  | 3.3.1 | Calculate the VAT on this item | (2) |
|  |  | 3.3.2 | Determine the selling price of this item if the profit is R75. | (2) |
| 3.4 |  | There are 240 children at a party. The ratio of the number of boys to the number of girls at the party is 3 : 1 . How many boys are at the party? | | (3) |
|  |  |  | | [13] |
| **Question 4** | | | |  |
| 4.1 |  | Write down the next two terms in the given sequence 5 ; 9 ; 13 ….. | | (2) |
| 4.2 |  | Describe the pattern in question 4.1 in words. | | (1) |
| 4.3 |  | Find the general term of the sequence in question 4.1 in the form | | (2) |
| 4.4 |  | Which term in the sequence is equal to 37? | | (2) |
|  | | | | [7] |
| Total | | | | [50] |



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| **Memo Gr 8 first term** | | |
| 1.1 | C | (2) |
| 1.2 | B | (2) |
| 1.3 | D | (2) |
| 1.4 | A | (2) |
| 1.5 | C | (2) |
| 2.1.1 | ✓✓ | (2) |
| 2.1.2 | ✓✓ | (2) |
| 2.1.3 | ✓✓ | (2) |
| 2.1.4 |  | (2) |
| 2.2.1 | = ✓ ✓  = ✓ **Answer only, 1 mark** | (3) |
| 2.2.2 | =  ✓  = ✓ **Answer only, 1 mark** | (2) |
| 2.2.3 | = ✓✓ ✓  = ✓ **Answer only, 1 mark** | (4) |
| 2.2.4 | = ✓✓  = ✓ **Answer only, 1 mark** | (3) |
| 3.1 | ✓  = ✓  = ✓ | (3) |
| 3.2 | = ✓✓  = ✓ | (3) |
| 3.3.1 | ✓  = ✓ | (2) |
| 3.3.2 | ✓  ✓ | (2) |
| 3.4 | ✓  ✓  ✓ | (3) |
| 4.1 | 17 ; 21 ✓✓ | (2) |
| 4.2 | Add to each consecutive term. ✓ | (1) |
| 4.3 | ✓ ✓ | (2) |
| 4.4 | ✓    ✓ | (2) |
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