|  |  |  |  |
| --- | --- | --- | --- |
| Year  8 | | *Indices* | Non Calculator  Section |
| **Skills and Knowledge Assessed:**   * Investigate index notation and represent whole numbers as products of powers of prime numbers (ACMNA149) * Use index notation with numbers to establish the index laws with positive integral indices and the zero index (ACMNA182) | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *Answer all questions in the spaces provided on this test paper by:*  *Writing the answer in the box provided.*  *or*  *Shading in the bubble for the correct answer from the four choices provided.*  *Show any working out on the test paper. Calculators are* ***not*** *allowed.* | | | |
|  |  | | |
|  |  | | |
|  | Write  in index notation. | | |
|  |  | | |
|  |  | | |
|  | Write the answer to  in index notation | | |
|  |  | | |
|  | ? | | |
|  |  | | |
|  | Write the answer to  in index notation | | |
|  |  | | |
|  | = ? | | |
|  | 6 | | |
|  | Write the answer to  in index notation and give its numerical value.  **=** | | |
|  |  | | |
|  | = ? | | |
|  |  | | |
|  | = ? | | |
|  |  | | |
|  | = ? | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Year  8 | | *Indices* | Calculator Allowed  Short Answer  Section |
|  | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *Answer all questions in the spaces provided on this test paper by:*  *Writing the answer in the box provided.*  *or*  *Shading in the bubble for the correct answer from the four choices provided.*  *Show any working out on the test paper. Calculators are allowed.* | | | |
|  |  | | |
|  | Evaluate . | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | Write the answer to  in index notation and give its numerical value.  **=** | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | Simplify | | |
|  | Evaluate . | | |
|  |  | | |
|  | ? | | |
|  |  | | |
|  |  | | |
|  | = ? | | |
|  |  | | |
|  | Simplify | | |
|  |  | | |
|  | Simplify | | |

Indices

ANSWERS

|  |
| --- |
| Non Calculator Section ( 1 mark each) |

|  |  |  |
| --- | --- | --- |
| Q no |  | Answer |
|  |  | 3rd Answer |
|  |  | 2nd Answer |
|  |  |  |
|  |  | 4th Answer |
|  |  | 2nd Answer |
|  |  |  |
|  |  | 3rd Answer |
|  |  |  |
|  |  | 4th Answer |
|  |  |  |
|  |  | 2nd Answer |
|  |  | 8 |
|  |  | 3rd Answer |
|  |  |  |
|  |  | 2nd Answer |
|  |  |  |
|  |  | 4th Answer |
|  |  |  |
|  |  | 1st Answer |
|  |  |  |

|  |
| --- |
| Calculator Allowed Short Answer Section ( 1 mark each) |

|  |  |  |
| --- | --- | --- |
| Q no |  | Answer |
|  |  | 4th Answer |
|  |  |  |
|  |  | 3rd Answer |
|  |  |  |
|  |  | 3rd Answer |
|  |  |  |
|  |  | 3rd Answer |
|  |  | 1st Answer |
|  |  |  |
|  |  | 2nd Answer |
|  | 2.450 =1 | 1 |
|  | =1 | 1st Answer |
|  |  | 29 |
|  |  | 3rd Answer |
|  |  | 2nd Answer |
|  |  |  |
|  |  | 4th Answer |
|  |  |  |
|  |  | 3rd Answer |
|  |  |  |